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THE MASAU TRAIL

COMPREHENSIVE MANAGEMENT PLAN

DRAFT
AUGUST 1989



Prepared by
Southwest Regional Office
National Park Service
U.S. Department of the Interior



As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally-owned public lands and natural and cultural resources. This includes fostering the wise use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources, and works to ensure that their development is in the best interests of all of our people. The Department also promotes the goals of the Take Pride in America campaign by encouraging stewardship and citizen responsibility for the public lands, and by promoting citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. Administration.

D R A F T D R A F T D R A F T D R A F T D R A F T

THE MASAU TRAIL
COMPREHENSIVE MANAGEMENT PLAN

August 1989

Prepared by:

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FOREWORD


The Masau Trail concept places the National Park Service in a unique, atypical role--yet a role that is still characterized by the Service's traditional goals of providing for the public appreciation and understanding of nationally significant resources and values, while encouraging and regulating the appropriate use of those resources in a manner that will leave them unimpaired for future generations.

It seems fitting that the Masau Trail is found in the vast open sweep of the Southwest: Here, it is still possible today to sense--with awe--the world substantially the way it was seen and felt by The Ancient Ones more than a thousand years ago--and here it is also still possible to experience a cultural continuum that has persevered through the centuries, and continues to enrich us today. The Masau Trail offers contemporary travelers a window to the past and a foundation for understanding the present. With the clarity of the desert and mountains as its backdrop, the Masau Trail promises to unfold and illumine the tapestry of a richly complex and fascinating prehistoric past.

John E. Cook
Regional Director
Southwest Region
National Park Service

CONTENTS

INTRODUCTION -----	1
BACKGROUND -----	2
THE PLAN	
General Provisions -----	6
Route Alternatives	
1: Minimum Requirements -----	21
2: Preferred Alternative -----	21
3: Variation of Preferred Alternative -----	23
4: No Action -----	24
Alternatives Considered but Rejected-----	25
Environmental Assessment -----	25
APPENDIXES -----	26



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INTRODUCTION

The Masau Trail thrusts the National Park Service into a new management role--that of administrator of a designated vehicular tour-route that uses existing public roads to connect ancient, nationally significant cultural sites.

Before the National Park Service can establish the exact routes and sites that will make up the Masau Trail, a comprehensive management plan must be developed and approved. The draft plan you now hold in your hands is the first step. It will be reviewed by the general public, other Federal agencies, state agencies, local agencies, Native American tribes, and others. Review comments will be evaluated before the final plan is prepared and approved.

BACKGROUND

NAME

The Congressionally authorized name of the trail was derived from the great Puebloan god-man, Masau, god of both life and death, and of the underworld and the surface world. Masau welcomed the Indian people to the Earth as they came up through the "sipapu," or place of emergence from the underworld. According to Puebloan history, Masau told the emerging people that they could not just wander haphazardly over the Earth until they found a place to settle. He told them how to migrate--how to recognize clues about where to permanently settle, and how to live once they arrived. They were given a magic water-jar to supply them on their migrations, and they followed Masau's trail of enormous footprints--each as long as a man's arms--until they reached what is now the American Southwest.

The Masau deity was also known to be associated with the protection of travelers in Puebloan history. Masau's huge footprints are found in petroglyphs throughout the Southwest, and it was Congress's intent to use this footprint symbol on Masau Trail route markers to help guide modern travelers to various trail-related sites.

For purposes of the trail, the "Masau" name is spelled and pronounced in Hopi fashion. The name for the deity is pronounced and spelled differently by other Puebloan tribes.

LEGISLATION

Public Law 100-225 of December 31, 1987 (appended), designates a vehicular tour route called "the Masau Trail," using

existing public roads to link prehistoric and historic cultural sites in New Mexico and eastern Arizona, including El Malpais National Monument, El Morro National Monument, Chaco Culture National Historical Park, Aztec Ruins National Monument, Canyon de Chelly National Monument, Pecos National Monument, and Gila Cliff Dwellings National Monument. Additional segments of the trail may be designated from time to time to link the abovementioned sites with other nationally significant cultural sites when the sites are designated and protected by Federal, State, or local governments, Indian tribes, or nonprofit entities. (For instance, the 1988 legislation establishing Zuni-Cibola National Historical Park stipulated that it be included as a Masau Trail site.) Appropriate markers will guide the public along the trail. Congress authorized the amount of \$500,000 to be appropriated for trail planning and development. The National Park Service will provide for public education about, and appreciation and enjoyment of, the trail.

Although not stated in the establishing legislation, Congress intended that the trail help bolster tourism in the region, and also intended that a major purpose of the multi-agency orientation center to be located on Interstate 40 at Grants, New Mexico would be to inform visitors about the Masau Trail, along with El Malpais National Monument and El Malpais National Conservation Area.

PLANNING HISTORY

In June 1988, the National Park Service conducted a briefing for Arizona and New Mexico state officials, other Federal land-managing agencies, and Indian tribes, to inform them about the Masau Trail planning process, and to initiate the cooperative effort essential for the success of the trail.

In August 1988, initial public Masau Trail scoping meetings designed to inform the public about planning, and to solicit ideas and concerns were held in Winslow, Arizona; and in Silver City, Gallup, Farmington, and Santa Fe, New Mexico.

In October 1988, the National Park Service's Southwest Regional Office sponsored a Masau Trail planning workshop in Santa Fe, New Mexico. Masau Trail site-managing entities and potential trail site managers, including Native American tribes, as well as key federal and state agency representation were invited to participate. The purpose of the workshop was to review initial public-scoping-meeting input, subsequent input provided by Native American contacts, and the legislated purpose of the trail; to recommend trail goals and objectives; and to provide input on preliminary trail route concepts. At this workshop, key issues that would require resolution during the planning process were identified:

Which existing roads should be designated to link the initial sites?

What criteria should be used in evaluating potential site additions?

Should route segments be designated because they are economically beneficial, or because they are attractive to and enjoyable for potential travelers?

Should the route have a limited capacity for site and route additions to prevent dilution of intended public benefits?

What opportunities exist for adding connecting or side-routes that are not part of the primary designated route?

What measures should be taken to mark the trail-route, and to promote public knowledge of the trail and the designated sites?

What roles should various trail development and management entities have, and how will long-term cooperation be fostered?

What should the trail marker look like, and what standards should guide its manufacture and placement?

In September 1988, the National Park Service contracted with Hayduk-King Advertising, Inc., of Santa Fe to prepare a Masau Trail conceptual marketing plan, to be incorporated into the



Salinas Pueblo Missions National Monument

comprehensive management plan. The purpose of the marketing plan is to provide the National Park Service (consistent with its authorities) and Masau Trail cooperators and supporters with a comprehensive strategy for promoting public awareness of the trail and its sites on regional, national, and international levels.

National Park Service planners evaluated the public and agency input received, and worked closely with Hayduk-King staff as the draft marketing plan and draft comprehensive management plan were concurrently prepared during the winter of 1988-1989.

COMPLIANCE

Native American groups have been consulted beginning in the earliest stages of planning for the Masau Trail, in accordance with the requirements of: the American Indian Religious Freedom Act, the Archeological Resources Protection Act, and the National Park Service's Native American Relationships Management Policy. Several Native American groups serve as study advisors for the plan.

Both the New Mexico and the Arizona State Historic Preservation Offices have also been consulted since the early stages of planning, and will continue to serve as study advisors for the plan.

THE PLAN

GENERAL PROVISIONS

The plan proposes the following general provisions and three route alternatives for the Masau Trail.

The general provisions apply to all alternatives except number 4--the No Action Alternative. Additionally, alternative number 1--the Minimum Requirements Alternative--contains no loops, so it follows that provisions involving loops do not apply.

Goals/Objectives

The National Park Service has formulated goals and objectives for the Masau Trail, based upon consideration of the trail's establishing legislation, upon the public and agency input received during the early planning stages, and upon its own professional determinations. These goals and objectives were used in the development of all of the alternative trail concepts, and in the evaluation of their merits and limitations.

ENHANCE VISITOR UNDERSTANDING, APPRECIATION, AND ENJOYMENT OF THE TRAIL ENVIRONS AND RESOURCES:

Provide a coherent and meaningful interpretive theme, emphasizing the evolution of the Anasazi tradition of the Puebloan culture through time and space.

Include nationally significant sites that are unique, interrelated, and can be experienced as parts of a whole.

Provide the trail with its own program of education and interpretation.

Stimulate and maintain visitor interest between sites along the trail.

Provide for the addition of natural or historic sites that substantively relate to Puebloan prehistory.

Provide for diversity in sites and educational experiences.

Emphasize sites that are appropriately developed, interpreted, and protected for public use.

Provide technical assistance to other entities in their improvement of site interpretation.

Provide associative status for entities that substantively enhance trail purposes, such as museums and cultural centers.

Provide trip-planning information.

Provide a comprehensible array of route choices.

Provide for entry and directional flexibility in visitor use of the trail.

Emphasize scenic and non-interstate-highway travel routes.

Delete, defer, or de-emphasize sites where trail-generated visitation detracts from visitor enjoyment

ENHANCE PRESERVATION OF AND RESPECT FOR RESOURCES AND CULTURAL VALUES:

Instill in visitors the importance of preserving our cultural heritage.

Instill in visitors a respect for and appreciation of Native American cultures--both past and present.

Delete, defer, or de-emphasize sites where resource integrity is threatened by trail-generated visitation increases.

Encourage visitation to sites where resource integrity is not threatened by trail-generated visitation.

ENHANCE TOURISM AND ECONOMIC-DEVELOPMENT OPPORTUNITIES,
CONSISTENT WITH PRESERVATION OF THE RESOURCES:

Identify a trail route that is bold in scope, and easy to use and market.

Provide for as comprehensive and complete a trail as possible.

Identify a route that helps to spread economic benefits.

Take advantage of existing or potential regional, national, and international markets.

Package the trail to attract use.

Extend the lengths of stay of visitors.

Encourage repeat visitation.

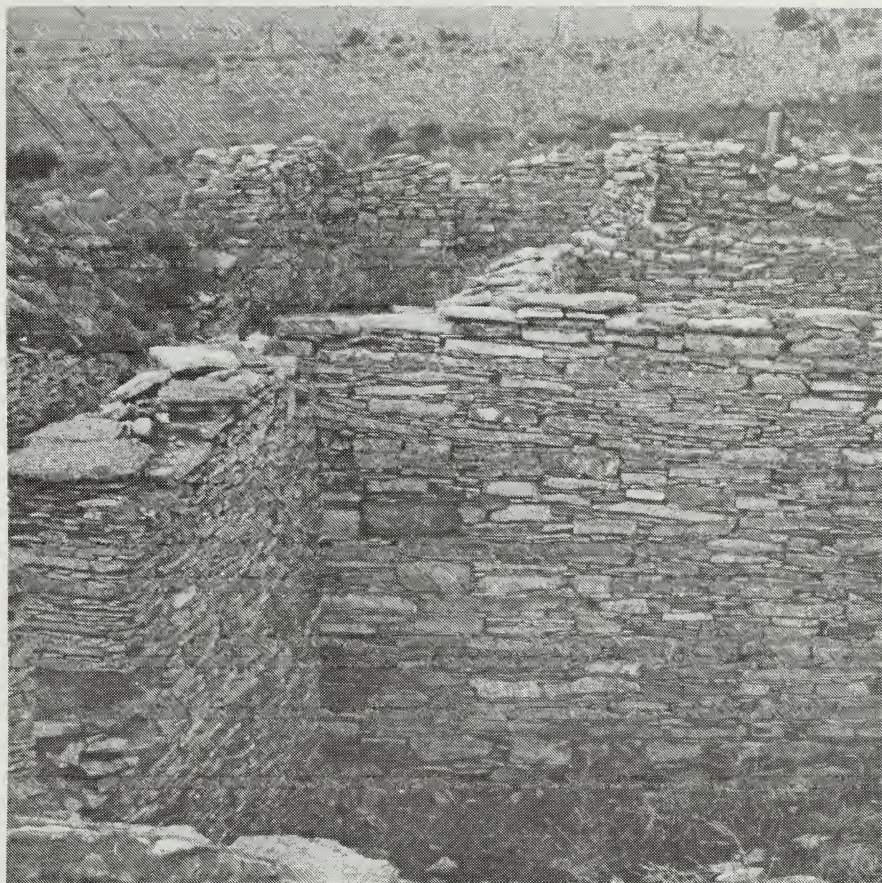
Integrate visitor-support services and facilities into the effective use of the route.

Encourage the creation of a single entity or a consortium to promote the trail in ways consistent with its purposes.

ESTABLISH A FRAMEWORK FOR TRAIL DEVELOPMENT AND ADMINISTRATION:

Provide for National Park Service leadership in coordinating the development and administration of the trail.

Promote agreements with non-NPS agencies and groups to officially designate trail sites, and to either provide for trail information and interpretation or



Casamero / Bureau of Land Management

provide National Park Service technical assistance in improving site interpretation.

Work to secure state support and cooperation in marking and promoting the trail.

Provide a trail system that is easy and inexpensive to manage.

Limit non-NPS trail logo use, so as to encourage others to abide by trail objectives.

Interpretive Focus

The interpretive focus in all alternatives for the trail is the prehistoric Anasazi culture, prehistoric cultures directly geographically adjacent to the Anasazi areas, and contemporary Puebloan descendants. "Anasazi" is a Navajo word that translates as "the ancient ones," and this is the term that is broadly used and accepted today in archeological circles. The word for "the ancient ones" in the Hopi language is "Hisatsinum." For purposes of this comprehensive management plan and future Masau Trail interpretation, the public would be informed of the Hopi preferred term "Hisatsinum," but subsequent references would use only the conventionally accepted term "Anasazi."

Only sites that possess nationally significant prehistoric and contemporary Puebloan resources would be included in the Masau Trail. Historic and natural resources would be included only if directly related to areas of Pueblo habitation, significant resource use, or cultural significance.

Limits

The Masau Trail would be kept within the area designated by legislation, and within areas of greater site density. The trail "boundary" is defined as lying only within Arizona and New Mexico--east of Flagstaff in Arizona, and west of Pecos

in New Mexico. There would be no more than 75 miles (approximately 1-1/2 hours of driving time) between level 1 and level 2 sites. (See "Sites" section that follows for definition of levels.)

Because of an implicit Congressional mandate for a geographically broad trail with the capacity for great expansion, it was determined that the trail would have to be divided into a system of integrated segments so it can be useable and marketable to the public. Only the main trail would be signed with official route markers, and notated on highway maps and general trail marketing materials.

The shorter loops or branches extending from, and sometimes along, the main route in Alternatives 2 and 3 would be presented to the public in more detailed interpretive and marketing materials. These loops or branches are designed to provide visitors with a range of 1- to 3-day excursions that focus on particular cultural provinces, thereby minimizing any potentially overwhelming initial impression of the main route's scale. Whether the main route is 750 or 1,500 miles in length, it is beyond the ability (that is, time and money) and interest (which may suffer from too many competing activities) of most potential visitors. (See Marketing Plan appendix.) The smaller 1- to 3-day components are designed to fulfill their more realistic needs. Along each loop, as with the main trail, services including lodging would be available. Along the trail, opportunities such as appropriate bicycle and horse-riding trails can be developed by others to supplement the trail driving experience. The trail may be joined or left at any point, or traveled in any direction, depending upon visitors' needs.

New Mexico 57, providing access to Chaco Culture National Historical Park, is the only section of dirt/gravel road included on the main trail. When the new east-west highway is completed between New Mexico 371 and New Mexico 44, the Masau Trail would be rerouted to use this highway as the southern and northern approach to Chaco.

Sites

Designated sites along the Masau Trail would contain nationally significant, in situ resources that are substantively part of the Anasazi tradition. Two site types are included:

Level 1: Sites have extensive, high-quality interpretive programs (that is, they have interpretive programs of sufficient depth for a visit of at least 20 minutes--offered in a museum or visitor center); high-quality developed environments (that is, they have well-designed and well-maintained parking, trails, restrooms, and signs--use materials appropriate to setting--ensure that programs and facilities are safe and handicapped-accessible); are open every day except major holidays; and have adequate site protection (on-site staff presence).

Level 2: Sites have resources that may be equal in significance to Level 1 sites, but their interpretive programs are not as extensive (no museum/visitor center); their developed environments (such as parking, trails, restrooms, signs) are not as high in quality as Level 1; public access is limited; and/or more site protection is needed.

The Site Inventory appendix lists the characteristics of all sites included on the alternative maps 1, 2, and 3.

Associated Facilities

In instances in which museums, cultural centers, and other educational facilities exist in proximity to the trail route, and these entities can substantively enhance trail purposes through their programs, the development of agreements may be beneficial. Such facilities could be identified in National Park Service publications. They could also help to distribute Masau Trail information, and possibly sell trail publications and other materials. The National Park Service could allow them to use the official Masau Trail symbol (logo) for certain purposes.

Facilities or programs requesting an association with the National Park Service and the Masau Trail would have to:

Include resources and opportunities for public use that are consistent with the purposes of the Masau Trail;

Have management policies and programs that complement or supplement programs of the Masau Trail;

Offer a high standard of maintenance and public service commensurate with those expected of units of the National Park System;

Provide public information and interpretive services that are accurate and consistent with general standards applicable to National Park System units;

Operate in conformity with applicable state, local, and federal laws with respect to public health and safety, environmental compliance, equal employment opportunities, and accessibility for the handicapped;

Have a clearly defined system of financial accountability, if selling publications or other materials produced or sponsored by the National Park Service.



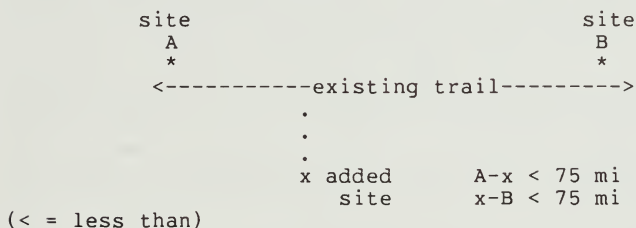
El Malpais National Monument



Navajo National Monument

Comprehensiveness

The potential incremental addition of sites beyond the eight legislatively mandated initial sites could result in major fluctuations in the routing over time; present a fragmented and confusing impression to potential users; disrupt ongoing interpretive and marketing efforts; break continuity in tourism patterns and benefits; and otherwise diminish the efficiency of management of the trail. The National Park Service has determined that there are only two practical ways to deal with the issue: the alternatives should either limit the sites to the eight legislatively mandated sites without any expansion provision, or they should provide for as near to complete a "system" as possible, with strict limits on future additions. Such additions could be added to the main trail (Alternatives 1, 2, and 3) or loops (Alternatives 2 and 3) in the future as long as they met requirements for significance, visitor services, and site protection, and as long as the 75-mile distance-limit was maintained between sites:



Interpretation

General orientation/information about the sites located along the Masau Trail would be provided, but interpretation that duplicates the interpretation already available at the sites would not. The trail would provide interpretation that enables visitors to gain a broad understanding of the Anasazi cultural tradition and its evolution through time and space, focusing upon the cultural provinces and their interrelationships with the sites within them and with the other provinces.

Interpretive sub-themes that would be addressed include:

- Cultural change and evolution;
- Cultural similarities and differences;
- Trade and travel;
- Human occupation and the natural environment;
- Spiritual and esthetic values;
- Changing landscapes and environments;
- Contemporary culture;
- North American contacts;
- European/Native American contacts.

To ensure that the time visitors spend driving from site to site would be an enriching experience, the following interpretive media elements would be developed:

Brochure: A basic National Park Service visitor orientation brochure/map would identify the purpose of the trail, and provide information about how to use and enjoy it. The text and map would give brief descriptions of the sites and cultural provinces. The brochure would be available for distribution at trail sites and tourist information centers.

Guidebook: A sales guidebook, prepared by a National Park Service cooperating association ("cooperative associations" in National Park Service terms are private, non-profit organizations that help to support National Park Service interpretation and research programs), and sold at trail sites and other appropriate locations, would provide detailed descriptions of the sites, but its primary purpose would be to expose the reader to a broader understanding of the Anasazi world and Puebloan culture. Natural, historic, and contemporary features and events that have occurred or occur on or near the trail route would be pointed out when they directly relate to the trail theme. Traveling the route would provide an opportunity for visitors to comprehend the relationships between places and events in the Anasazi world.

Cassette Tapes: A series of sales audio-cassette tapes would be developed by a National Park Service cooperating association. The tapes would provide a convenient way of providing guidebook information for those visitors with automobile tape-decks or portable tape-players. Some tapes could focus directly on the cultural provinces being traveled through and explored, while others could provide for an overview of the Anasazi tradition.

Wayside Exhibits: Roadside or wayside exhibit panels would interpret natural, historic, or contemporary features or events that occurred or occur at the stop, or can be seen from it. Local groups, Native American tribes, government agencies, and others could ask (after gaining the tentative approval of appropriate road-managing authorities) the National Park Service to help provide a standardized system of wayside exhibits at appropriate locations along the main route or loops. The National Park Service would evaluate such requests on the basis of their ability to meet trail goals and objectives. (The National Park Service would not construct roadside pull-outs.) Because Level 1 sites usually have more interpretive development, they would not ordinarily require a wayside exhibit. Some Level 2 sites may lend themselves to such devices, however, because these sites are less likely to have interpretive developments.

Radio Transmissions: If found feasible and beneficial, the installation of small AM broadcast devices with continuous messages would be considered for Level 1 sites. A sign would advise motorists when and where to tune to a frequency for a prerecorded introductory message about the site and its relationships to the Anasazi world.

Basic orientation to the Masau Trail would be available at each Level 1 site, as well as at such places as highway information centers and associated museums and cultural centers. A wall-panel graphic or an audiovisual program--or both--would provide all designated Level 1 sites with the appropriate media. A 15- to 20-minute interpretive film about the Masau Trail would be made available to all Level 1 sites having projection equipment. The trail brochure would also be available to augment the information provided. Trail brochures would be made available on a cost basis to entities working to promote and market the trail.

The multi-agency orientation center mandated by the establishing legislation for the Masau Trail (and El Malpais National Monument and El Malpais National Conservation Area) for emplacement on Interstate 40 at Grants, New Mexico, would have the dissemination of Masau Trail information to interstate-highway travelers as one of its major purposes. More in-depth trail orientation would be provided, as well as greater exposure of the sites that lie along it. Exhibits and audiovisual programs would be employed to enhance this orientation-center role.

All site brochures would be stocked at each Level 1 trail sites, as well as at associated locations such as museums and cultural centers. This would enhance visitors' trip-planning abilities, while helping to further their effective use of the Masau Trail.

Level 2 sites would not receive on-site orientation about the Masau Trail, but they would be identified in the trail brochure and guidebook. Level 2 sites would be marked with the trail logo.

Before actual interpretive media are produced, an Interpretive Prospectus would be completed to further develop loop themes (see pages 25-27) and to convert the above guidelines for interpretive media into more specific media plans and prescriptions.

Marketing/Promotion

Congress's intent was to have the Masau Trail provide an economic stimulus through tourism, as well as to provide for "public appreciation, education, understanding, and enjoyment." With these goals in mind, the National Park Service contracted with an advertising firm to prepare a marketing plan (appended) for the Masau Trail. By providing this plan, the National Park Service has helped to define an effective relationship between its interpretive and public-information responsibilities and the promotional activities that lie beyond its legal authorities but within the purview of state, local, tribal, and business interests. In addition, a coordinated marketing or promotional strategy, to be overseen by a single entity, provides the National Park Service with an

opportunity to further trail purposes through a mutually beneficial cooperative relationship.

As recommended in the marketing plan, the National Park Service would encourage state tourism departments to bring about the creation of a Masau Trail Association (MTA). The MTA would have members representing chambers of commerce, tribal authorities, state tourism departments, local agencies, and other key organizations. It would be asked to negotiate a memorandum of understanding with the National Park Service. The memorandum could address how the National Park Service would assist the MTA, including:

- How National Park Service interpretive efforts can be coordinated with MTA promotional activities to minimize conflicts;

- How to provide for National Park Service assistance in giving MTA accurate information for promotional efforts;

- How to provide MTA with National Park Service trail brochures;

- How to provide for the distribution by MTA of handbooks and directories at trail sites;

- How to obtain National Park Service permission to use the trail logo for appropriate purposes;

- How MTA would assist the National Park Service, and through it, other site-managing entities in encouraging visitor respect for and appropriate use of cultural and natural resources;

- How MTA would help to control trail and site promotion so as to protect sites/resources from overuse and adverse impacts;

- How MTA would help to protect and enhance visual quality along the route;

- How MTA would assist the National Park Service in adding to--or deleting from--Masau Trail sites or associated facilities.

Administration

The National Park Service's Chief, Branch of Trail Programs, Southwest Regional Office, in Santa Fe, New Mexico, would administer the Masau Trail, and coordinate the overall development of the system.

For National Park System units that are part of the Masau Trail, trail affiliation would not affect their specific purposes and management objectives other than to commit them to house some basic onsite trail-orientation media for visitors. As would be the case with sites that were not administered by the National Park Service, National Park Service areas could be deleted, deferred, or de-emphasized, as appropriate, in order to protect resources and the quality of visitors' experiences from overuse or other adverse visitor impacts.

The Masau Trail administrator would monitor site-provided visitation and resource-condition data, and coordinate mitigation strategies with site managers if overuse should approach problematic levels. The National Park Service would pursue additional operating and development funds when trail-generated visitation increases result in increased maintenance, interpretation, development and other needs at its field areas.

The Southwest Regional Office would coordinate closely with the Western and Rocky Mountain Regional Offices to ensure that any of their affected National Park Service units are appropriately considered in Masau Trail planning and administration.

Sites that were not administered by the National Park Service, as well as associated museums and cultural centers, would become officially affiliated with the Masau Trail through the negotiation of cooperative agreements and memorandums of understanding. The Bureau of Land Management, the U.S. Forest Service, non-profit groups, Native American tribes, and state and local governments that manage nationally significant sites would be the primary parties to the agreements.

Other agreements necessary to the implementation of the Masau Trail would involve:

The Arizona and New Mexico highway departments, regarding the erection and maintenance of the trail-marker signs, potential wayside exhibit installations, placement of interpretive materials at highway welcome centers and rest areas, and the inclusion of the trail on official highway maps;

The Arizona and New Mexico tourism departments, to coordinate interpretive and promotional efforts, especially the creation of the Masau Trail Association;

The proposed Masau Trail Association, for purposes stated in the previous "Marketing/Promotion" section;

Local agencies or groups that propose appropriate wayside exhibits along the trail;

A National Park Service cooperating association, requested under an existing agreement to prepare and market Masau Trail interpretive publications, cassette tapes, and other educational materials.

The Masau Trail administrator would also be responsible for initiating and coordinating the planning, design, production, and distribution of interpretive media and trail-marker signs. The administrator would also manage the use of the trail logo by others to ensure that its use was consistent with trail purposes.

When requested, the trail administrator would take action to provide technical assistance to help plan interpretive improvements at trail sites not administered by the National Park Service. Such assistance would be limited to planning or design activities, and would not include the actual development or production of programs or facilities.

When appropriate, the trail administrator would seek the donation of funds to provide for trail markers and interpretive devices and materials.

Marker

The Masau Trail marker would contain the logo design shown on the following page. The National Park Service would retain all rights to its use. Its use by others is restricted to specific applications that help further the purposes of the trail. The marker symbol must be approved by the Federal Highway Administration before it can be used on federal or interstate highways. Final colors for the marker will be determined. Written agreements between the National Park Service and other entities would also address the terms of logo use. Design, location, and number of markers (and waysides) will be appropriate and compatible to their setting.

ROUTE ALTERNATIVES

The goals and objectives for the Masau Trail have generated the formulation of three route alternatives, a "no action" alternative (to comply with the National Environmental Policy Act), and five alternatives that were considered but rejected.

The three route alternatives share all of the attributes described in the "General Provisions" section (except that the Minimum Requirements Alternative does not contain loops, so any provisions referring to loops do not apply).

The three route alternatives differ in respect to:

- Whether linkages between sites favor directness or scenery;

- Whether the trail ties into existing tourist routes;

- Whether loops are included, and how many loops and the extent of the loops;

- How many adjacent cultural provinces are included.



PROPOSED TRAIL LOGO

1: Minimum Requirements

In this alternative, eight sites designated in the Masau Trail or other area establishing legislation are connected, using the most direct routes. The trail would include sites associated with Anasazi, Mogollon, and Rio Grande Pueblo cultures.

The total one-way mileage is 780 miles.

Map 1 illustrates this alternative.

2: Preferred Alternative

This alternative emphasizes scenic connections between sites. For example, New Mexico 4 through the Jemez Mountains is used to link Pecos National Monument, Bandelier National Monument, Jemez State Monument, and Coronado State Monument; and New Mexico 6 is used instead of Interstate 40, just west of Albuquerque. Although resulting in more than 75 miles between sites, Arizona 89 and Arizona 180 between Flagstaff, Navajo National Monument, and Aztec, New Mexico, are used to tie into the existing tourist route between Grand Canyon National Park and Mesa Verde National Park.

The total length of the trail (one way, counting all segments once) in this alternative is 1,450 miles.

Nine shorter loop routes are also included, to offer the public options for 1- to 3-day trips focused upon a particular prehistoric cultural group. The loops range between 125 and 250 miles. Each loop focuses on a different cultural area, and connects sites relating to that particular cultural area. The loops would not be signed as part of the actual Masau Trail, but would be promoted locally and in more detailed trail literature. They are arranged so that they can originate or end in a service community on the main trail. With these loops, the trail would include sites associated with the Anasazi, Mogollon, Sinaguan, Rio Grande Pueblo, and Piro/Tompiro cultures.

The loops are:

1. Upper Rio Grande (Pecos/ Santa Fe/ Bandelier/ Jemez/ Albuquerque/ Santa Fe)--260 miles. Theme: possibly the migration of the Anasazi culture down from Mesa Verde area to settle Rio Grande Valley; and/or the ancestors of Eight Northern Pueblo people.

2. Piro/Tompiro (Albuquerque/ Tijeras/ Salinas, including Gran Quivera/ Albuquerque)--200 miles. Theme: possibly Piro pottery; and/or Spanish missions.

3. Western Pueblo (Grants/ El Malpais/ El Morro/ Zuni/ Fence Lake/ El Malpais/ Acoma/ Laguna/ Grants)--234 miles. Theme: possibly Zuni, Acoma, and Laguna culture; Tularosa pottery; and/or Spanish contact.

4. Southern Chacoan (Gallup/ Zuni/ El Morro/ El Malpais/ Grants/ Casamero/ Gallup)--178 miles. Theme: possibly Chacoan culture--how these southern sites relate to/compare with the Chaco Culture NHP area; Zuni culture; and/or Spanish contact.

5. Chaco North (Farmington/ New Mexico 371 south to Chaco/ Salmon/ Aztec)--185 miles. Theme: possibly Chaco culture; and/or how northern Chaco outliers relate to/compare with Chaco Culture NHP area.

6. Kayenta (Chinle/ Canyon de Chelly/ Chinle/ Kayenta/ Navajo NM/ Chinle)--195 miles. Theme: possibly Canyon de Chelly; and/or Anasazi culture.

7. Winslow (Winslow/ Holbrook/ Petrified Forest)--135 miles. Theme: possibly Anasazi culture's relationships with Mogollon and Sinaguan cultures.

8. Sinaguan (Flagstaff/ Sedona/ Tuzigoot/ Montezuma Castle/ Homolovi/ Walnut Canyon/ Elden Pueblo)--215 miles. Theme: possibly Sinaguan culture; and/or relationship to overlap with Anasazi culture.

9. Mesa Verde (Farmington/ Salmon/ Aztec/ Mesa Verde/ Farmington)--200 miles. Theme: possibly the comparison between Mesa Verde and Chacoan cultures. (Mesa Verde National Park is located in Colorado, and is not within the

legally authorized area for routing the Masau Trail. However, it is proposed to be attached to a secondary loop that will not be marked but will instead be identified on interpretive materials. The National Park Service is currently conducting a study of protection options for significant Anasazi sites, including Mesa Verde, in the Montezuma Valley area of southwestern Colorado and southeastern Utah. Recommendations of this study may affect the Masau Trail).

Map 2 shows the sites that would be included in the trail, the highways to be used for the main trail, the loops, and loop names.

3: Variation of Preferred Alternative

Although this alternative includes more miles of interstate highway than Alternative Two, scenic connections are also emphasized (such as New Mexico 14 and New Mexico 4). Arizona 160 and New Mexico 64 between Tuba City and Farmington would not be included as part of the Masau Trail, so the trail does not incorporate the existing tourist route between Grand Canyon and Mesa Verde to the degree that Alternative Two does.

The total mileage for this alternative is 1,420 miles (one way, counting all sections of the main trail once).

In order to offer more travel options, and to tie into existing major attractions, loops are increased to 10 in this alternative. The Taos loop is included to tie the trail in to more major sites outside the main trail area. When the Homolovi and Hopi sites are ready for visitation, the Little Colorado loop would be incorporated; and if Mimbres sites are developed in the future, the Mimbres loop would be incorporated. The Canyon de Chelly loop is included as an alternative to the Southern Chacoan loop for those wanting a loop trip originating in Gallup. With these loops, the trail would include sites associated with Anasazi, Mogollon, Sinaguan, Rio Grande Pueblo, and Piro/Tompiro cultures.

Loops 1, 2, 3, 5, 6, 8, and 9 from Alternative Two are included in this alternative, and descriptions will not be



Gila Cliff Dwellings National Monument

repeated here. Loops 4 and 7 from Alternative Two are not included. Additional loops included in this alternative are:

10. Taos (Española/ Picuris/ Toas/ San Juan/ Puye)--125 miles. Theme: possibly the migration of the Anasazi people down from Mesa Verde area to settle Rio Grande Valley; northern Rio Grande Pueblo people and their ancestors.

11. Little Colorado (Flagstaff/ Homolovi/ Hopi, if and when appropriate/ Wupatki/ Elden Pueblo)--250 miles. Theme: possibly the relationship between the Anasazi/Hisatsinum culture (ancestral Hopi) and historic/contemporary Hopi culture; and/or the Anasazi culture and Sinaguan culture overlap.

12. Mogollon/Mimbres* (Silver City/ Lake Roberts/ Gila Cliff/ others, if added). Theme: possibly Mogollon/Mimbres culture, Mimbres pottery especially. (*Note: The National Park Service is preparing a study to determine appropriate ways to commemorate the Mimbres culture. This loop or loops will be further developed pending recommendations of the Mimbres Study.)

13. Canyon de Chelly (Gallup/ Canyon de Chelly/ Tsai-le/ Gallup)--200 miles. Theme: possibly the Anasazi culture in the Canyon de Chelly area.

Map 3 shows the sites and routes included in this alternative.

4: No action

Under this alternative, existing conditions would continue. The Masau Trail concept would not be formalized, and the trail would not be developed. No components or routes, theme, trail limits and sites, associated facilities, and administration would be determined. No interpretive programs or support facilities would be provided. Marketing and promotion would be irrelevant. No trail marker would be designed or emplaced.

Alternatives Considered but Rejected

A. Main Trail only--no loops: Without loops incorporated into the trail, there would be no accommodation of 1- to 3-day trips structured around a specific cultural province area. Fewer sites would be included in the trail.

B. Main trail or loops extending into the Phoenix-Tucson (Salado/Hohokam) area: Extending the trail into this area would make the trail too long, and more difficult to market. Also, because the Salado and Hohokam cultures do not directly geographically overlap with the Anasazi culture, inclusion of these cultures would not conform with the Interpretive Focus as described on page 12.

C. Main trail extending east of Pecos: Sites relating to the trail's interpretive theme are few and far apart in eastern New Mexico; thus, long driving stretches of more than 75 miles between sites would be required in this region.

D. All loops included as part of the main trail: With all the loops included as part of the main trail, the trail would be long and complex, difficult for the public to understand, and difficult to market.

E. Main trail consisting of one large loop connecting eight legislated sites (with no short-cuts): As in Alternative A above, 1- to 3-day trips within a specific cultural area would not be accommodated. In this alternative, the trail would be more difficult to interpret because it would relate less to cultural-province areas. There would be long distances between sites, and fewer sites would be incorporated.

Environmental Assessment

See following page.

ENVIRONMENTAL ASSESSMENT OF ALTERNATIVES

	1-Minimum Requirements	2-Proposal	3-	
ALTERNATIVE CONCEPTS	Connect legislative sites using direct routes. 780 miles	Include majority of Anasazi/Hisatsium (A/H) routes; tie into Grand Canyon/Mesa Verde tour route; incl. 1- to 3-day trip loops within trail area. 1,450 miles	Include majority of A/H world; emphasize emph. scenic routes; tie into Gallup/Tuba City tour route; incl. 1- to 3-day trip loops within and extending beyond trail area. 1,420 miles	
IMPACTS				MITIGATION
CULTURAL RESOURCES (incl. structural ruins, rock art, artifacts, sites/landscapes).				
A.	Possible degradation of resources at 15 sites resulting from increase in visitation and subsequent increased potential for overuse.	Possible degradation of resources at 27 sites resulting from increase in visitation and subsequent increased potential for overuse.	Possible degradation of resources at 28 sites resulting from increase in visitation and subsequent increased potential for overuse.	Options include: - visitor education - modifying design of trails/facilities - site management - closing certain areas within site, or removing site from trail--i.e., redirecting visitation to other, less sensitive areas.
	(See visitor use Impact A for more on increase in visitation.)	more on increase in visitation.)		
B.	Possible increase in public support for resource preservation due to increased public awareness of resource values.	Possible incr. in public support for resource preservation due to incr. public awareness of resource values; broader support base possible due to trail encompassing a larger area and more sites than Alternative A.	Possible incr. in public support for resource preservation due to incr. public awareness of resource values; broader support base possible due to trail encompassing a larger area and more sites than Alternatives 1 and 2.	
C.	Individual sites may require economically costly mitigative measures to address incr. in resource protection and interpretation needs. 15 sites	Same as 1. 27 sites	Same as 1. 28 sites	
CULTURAL RESOURCES				

ENVIRONMENTAL ASSESSMENT OF
ALTERNATIVES

D.	1- Minimum Requirements		2-Proposal		3-	
	Increase in visitation may affect amount of vandalism, either positively or negatively.	15 sites	Same as 1.	27 sites	Same as 1.	28 sites
NATURAL RESOURCES A. Vegetation	No direct impacts (plan does not call for development); possible indirect impacts due to potential for increased visitation. Possible decrease due to incr. automobile use. Possible decrease due to increased automobile use.		Same as 1--applying to a greater number of sites than Alternative 1.		Same as 1--applying to a greater number of sites than Alternatives 1 and 2.	Minimize disturbance and ensure revegetation where necessary.
B. Air Quality	Possible decrease due to incr. visitation (e.g., due to incr. soil erosion resulting from incr. trail traffic, especially at less-developed sites).		Same as 1--applying to more sites than in 1.		Same as 1--applying to a larger geographical area than 1 and 2.	Visitor education and improved trail design.
C. Water Quality	No impacts expected.		Same as 1.		Same as 1.	
D. Wildlife (Threatened and Endangered Species)	No impacts expected.		Same as 1.		Same as 1.	
E. Floodplains/Wetlands	No impacts expected.		Same as 1.		Same as 1.	
F. Energy Consumption	Possible incr. due to incr. fuel consumption.		Possible incr. greater than in Alt. 1 due to greater trail mileage.		Same as 2.	
VISUAL RESOURCES	Possible incr. in overall visual quality of site and highway environment due to potential incr. traffic and commercial development.		Possible decrease greater due to greater trail mileage.		Same as 2.	Encourage visual quality in commercial developments.

ENVIRONMENTAL ASSESSMENT OF ALTERNATIVES

VISITOR USE		2-Proposal		3-	
A. Comprehension of Trail	1-Minimum Requirements	Lower trail mileage and simpler routing may make trail easier to comprehend as a whole; however, trail still needs to be broken down into realistic trip-length segments by the public.	Greater trail mileage and more complex routing may make trail more difficult to comprehend as a whole; however, loops give the public structured trip options and the greater geographical breadth may be more attractive to national visitors considering the SW as their vacation base.	Same as 2.	For 2 and 3--loops not signed with trail logo; describe loops only on more detailed trail information.
	B. Visitation	Some incr. in visitation (5-30%) likely at the 15 sites along the trail; possible degradation of visitor experiences at these sites due to crowding and deterioration of facilities and resources.	Some incr. in visitation (5-30%) likely at the 27 sites along the trail; possible degradation of visitor experiences at these sites due to crowding and deterioration of facilities and resources; possible greater incr. at sites in Mesa Verde area due to inclusion of Mesa Verde NP on loop; loop options may attract more repeat visitors.	Some incr. in visitation (5-30%) likely at the 28 sites along the trail; possible degradation of visitor experiences at these sites due to crowding and deterioration of facilities and resources; possible greater incr. at sites in Mesa Verde area due to inclusion of Mesa Verde NP on loop; loop options may attract more repeat visitors.	Options include: - visitor education to ensure realistic expectations of site conditions - disperse/redirect visitors - modify design of trails/facilities; incr. maintenance of trails/facilities. - remove site from trail.
C. Interpretation		Incr. opportunities for interpretation of Southwest prehistoric cultural resources; increased public understanding of prehistoric cultures limited by smaller scope of trail (does not encompass all Anasazi/Hisatsinum cultural areas); public visiting trail sites, but not following the trail may also benefit from regional scope of Masau Trail interpretive material at trail sites.	Incr. opportunities for interpretation of SW prehistoric cultural resources; public benefits from larger scope of trail; i.e., inclusion of all major Anasazi/Hisatsinum cultural areas will enhance public understanding of prehistoric cultures; public visiting trail sites, but not following trail may also benefit from regional scope of Masau Trail interpretive material at trail sites.	Same as 2; scope of public understanding further enhanced by inclusion of Mesa Verde and Taos loops.	For 1--cover all Anasazi/Hisatsinum areas in trail interpretive materials.
	D. Driving Experience	Branch layout (as opposed to loop) may pro-	Loop layout in NE AZ area of Hail (as	Branch layout in NE AZ area of trail (as	

ENVIRONMENTAL ASSESSMENT OF
ALTERNATIVES

	1-Minimum Requirements	2-Proposal	3-
	duce quality of experience for some trail travelers.	opposed to branch layout) may enhance the quality of experience for some travelers; however, longer distances betw. sites on the Flagstaff-Farmington section may reduce quality of experience for some trail travelers.	opposed to loop) may reduce quality of experience for some trail travelers.
SITE MANAGEMENT	Potential for increased demand on management and operations due to increased visitation, at 15 sites.	Same as 1. 27 sites	Same as 1. 28 sites
SOCIOECONOMIC A. Economic Benefits	Incr. in tourism travel likely, with subsequent incr. in revenue from retail sales, lodging, etc., in trail communities; possible incr. in local employment; benefiting communities limited to those along branches or main trail.	Incr. in tourism travel more likely than in Alt. 1 because Alt. 2 has a higher potential to attract more national and international visitors, and repeat visitors returning to do other loop options, due to larger scope of trail, more communities in a broader region may benefit; as in Alt. 1, likely incr. in revenue from retail sales, lodging, etc., and possible incr. in local employment.	Same as 2, with even greater travel and revenue incr. likely due to inclusion of Mesa Verde and Taos loops, and potential future inclusion of Mimbres and Little Colorado loops.
B. Socio-cultural Interaction	Potential for increased interaction between locals and tourists in trail communities, and increased cultural interaction at pueblos and reservations, with potential positive or negative effects.	Same as 1--applying to more communities and a larger geographical area than Alt. 1.	Same as 1--applying to more communities and a larger geographical area than Alts. 1 & 2.
C. Regional Infrastructure	Potential for better utilization of, or overloading, of regional service infrastructure (e.g., campgrounds, roads).	Same as 1--applying to a larger geographical region than Alt. 1.	Same as 1--applying to a larger geographical region than Alts. 1 and 2.
			For potential negative effects, encourage communities to monitor situation and communicate needs for changes.
			For overloading--direct public to alternate facilities.

ENVIRONMENTAL ASSESSMENT OF ALTERNATIVES

D. Community Inter- action	1-Minimum Requirements	2-Proposal	3-
	Potential for incr. communication and co- operation. Trail com- munity travel organi- zations.	Same as 1--with more potential for communi- cation/cooperation be- tween Arizona and New Mexico.	Same as 1--with more potential for communi- cation/cooperation be- tween New Mexico, Ari- zona, and southern Colorado.

APPENDIXES

A: SITE INVENTORY

See following page.

MASAU TRAIL - Site Inventory

Site Name	Jurisdiction	Nat'l Register of Historic Places	Cultural Association	Location	* = Level 1 - Open A = Level 1 - Not yet open				< = Level 2 - Open > = Level 2 - Not yet open				Notes (Interpretive values, etc.)
					Access	Facilities	Interpretive Program	Site Protection					
* Pecos NM	NPS	Yes (new nomination in process)	Upper Rio Grande, A/H	Off NM 63 just S of Pecos	Paved Road Surface	vc/trails, etc.	X	X					Gateway to plains, plains/pueblo interaction, birth of SW archeology, Spanish contact.
* Salinas Pueblo Missions NM	NPS	Yes	Piro/Tompieros, A/H	NM 60 & 55, SE of Albuquerquer, 3 locations.	Paved/dirt/gravel	vc/trails, etc.	X	X					3 detached areas; rock art at Abq. Pueblos, plains & Empire--precontact Indians, Spanish contact & 17th-century New Mexico.
* El Morro NM	NPS	Yes	Western Pueblo, A/H	NM 53, 48 mi. W of Grants	Paved	vc/trails, etc.	X	X					Important watering place on trail to Cibola, where Indians, Spanish, & Americans left their inscriptions.
* Gila Cliff Dwellings NM	NPS/USFS	Yes	Mogollon	NM 15, 40 mi. N. of Silver City	Paved	vc/trails, etc.	X	X					Road washout/closures possible. World of prehistoric cliff-dwelling Mogollon people.
* Chaco Cult. NH Park	NPS	Yes	Chacoan, A/H	NM 57, S of Farmington	Dirt (new paved NM road planned)	vc/trails, etc.	X	X					Incl. 3 outlier sites. Relationships between Chaco A/H & outlying areas; regional cult. sys. & daily life of A/H.
* Aztec Ruins NM	NPS	Yes	Chacoan, A/H	NM: N side of town of Aztec	Paved	vc/trails, etc.	X	X					Bound. expansion planning underway. Day-to-day life style of A/H; continuity of basic adaptation; comparison w/present-day adaptations to arid SW environm.
* Canyon de Chelly NM	NPS/Navajo	Yes	Plateau Kayenta, A/H	AZ: off US 191, 35 mi. N of Ganado	Paved	vc/trails, etc.	X	X					Concessioner offers cany. tours. Cany. access limited. Human occup. supported 2000 yrs. in cany., incl. A/H & past/present Navajo occup.
* Salmon Ruins	San Juan County Research Ctr.	Yes	Chacoan (A/H)	NM 64 just E of Farmington	Paved	vc/trails, etc.	X	X					Stabilization recommended for increased visitation.
* Wupatki NM	NPS	Yes (new nomination in process).	Sinaguan	AZ 89, N of Flagstaff	Paved	vc/trails, etc.	X	X					New backcountry mgmt. plan being prep., plan will require registration to increase protection of backcountry sites. Human adaptation & cult. chng. resulting fr. erupt. of Sunset Cr.

please note: A/H+ = Anasazi/Hitsatsinm

Site Name	Jurisdiction	Nat'l Register of Historic Places	Cultural Association	Location	Access Road Surface	Facilities	Interpretive Program	Site Protection	Notes (Interpretive values, etc.)
* Walnut Canyon NM	NPS (WRO)	Yes	Sinaguan	AZ: Off I-40, just E of Flagstaff	Paved	vc/trails, etc.	X	X	Parking lot expansion needed to accommodate visitation toctr. Fremst. Sinaguan a- daptation & relat. to env.
* Navajo NM	NPS	Yes	Kayenta, A/H	AZ 564, 20 mi. W of Kayenta	Paved	vc/trails, etc.	X	X	Navajo Tribal Park proposal for other sites in this area (presently inacces- sible) 100 yrs. of Kayenta A/H life & pop. shifts in Tsegi drainage.
* Petrified Forest NP	NPS (WRO)	Yes	Winslow, A/H; Mo- gollon/ Sinaguan	AZ: off I-40, 25 mi. E. of Hol- brook	Paved	X vc/trails, etc.	X	X	Includes rock art sites. Interpretive emphasis on paleontological resources. Comprehensive park planning underway.
* Jemez State Monument	NM State	Yes	Upper Rio Grande Town	Off NM 4, 20 mi. SW of Los Alamos	Paved	X vc/trails, etc.	X	X	Pueblo and mission Ruins.
* Coronado State Monu- ment and State Park	NM State	Yes	Upper Rio Grande Town	Off NM 44, 20 mi. N. of Albuquerque	Paved	X vc/trails, etc.	X	X	1,200 rooms and frescoes.
* Tuzigoot NM	NPS (WRO)	Yes	Sinaguan	Off AZ Alt. 89, S of Sedona	Paved	X	X	X	Outside trail "boundary." Sinaguan, Hokokam, & other prehist. peoples, their lifeways & use of environm.
* Montezuma Castle NM	NPS (WRO)	Yes	Sinaguan	AZ: Off I-17 Just N of Camp Verde	Paved	X	X	X	Outside trail "boundary." Crowded beyond capacity in spring/summer. Sinaguan, Hokokam, & other prehistoric peoples, their lifeways & use of environment.
* Mesa Verde NP	NPS (RMRO)	Yes	Mesa Verde, A/H	Off CO 160, E of Cortez Cortez.	Paved	X	X	X	Outside trail "boundary." Lifeways of Mesa Verde A/H & use (possibly mis-use) of environment.
* El Malpais NM & NCA	NPS/BLM	Yes	Western Pueblo A/H; Cha- coan; Aco- ma, Zuní, Leguna, Ra- man Navajo	Off I-40 at Grants, NM 53 & 117	Paved	X Visitor Contact Station	Some Infor- mation in visitor con- tact station. Visitors re- ferred to privately run tours.	Some	Comprehensive planning un- derway. Transition from Chacoan era to present; place of man in ecological complex of El Malpais.

MASAU TRAIL - Site Inventory

Site Name	Jurisdiction	Nat'l Register of Historic Places	Cultural Association	Location	Access	Facilities	Interpretive Program	Site Protection	Notes (Interpretive values, etc.)
A Zuni-Cibola NH Park	NPS/Zuni	Yes	Western Pueblo A/H; Zuni	NM 53/36, S of Gallup	Surface Road Paved/dirt	No vc; restrooms.	Guided tours.	Some	Sites open via guided tours only: More public access in near future. 2 millennia of culture geographically integrated; land continues as ancestral context for living culture.
< Tijeras Pueblo	USFS	Yes	Tompino	Off NM 14, N of I-40	Paved	No vc; facilities in nearby ranger station.	No vc; some signage, displays in ranger station.	Some	Priority on FS list for interpretive development.
< Lake Roberts	USFS	No (nom. in progress)	Mimbres	NM 15/35, N of Silver City	Paved	No vc; restrooms.	No vc; signed trail only.	Some	Within dev. area (housing, etc.) needs more signing. Nat. Reg. nomination in progress for district that includes Lake Roberts.
< Casamero	BLM	Yes	Chacoan A/H	NM: Off county rd. N of Prewitt	Dirt/gravel	No vc.	Several way-sides. No vc.	4x/year outliner patrol.	Chacoan outlier site.
< Apache Creek	USFS	No (Nomination planned)	Northern Mogollon	NM 32/12, NE of Reserve	Paved	No vc; camp-ground, restrooms.	X		Includes rock art. Trail improvements planned.
< Elden Pueblo	USFS	Yes	Sinaguan	AZ: N side of Flagstaff	Paved	No vc; restrooms.	No vc.	X	N AZ University does summer programs. Public can watch excavations.
* Bandalier NM	NPS	Yes	Upper Rio Grande, A/H	Off NM 4, S of Los Alamos	Paved	X Vc/trails, etc.	X	X	Often overcrowded beyond facility capacity. Influx & adaptation to new environment, 1100; interaction w/neighbors & environment; abandonment 1500s; move to Rio Grande pueblos still occupied today.
< Puye Cliffs	Santa Clara Pueblo	Yes	Upper Rio Grande A/H	10 mi. W of NM 30, S of Espanola	Paved	No vc; restrooms, picnic.	X	X	Large mesa-top pueblo ruin.
A Homolovi State Park	AZ/State	Yes	Ancestral Hopi, A/H	AZ: off I-40 at Winslow	Dirt	X At vc.	Vc; some waysides.	Some	Includes Chevelon ruin. Main development (vc/roads) planned for 1989/90.

Site Name	Jurisdiction	Nat'l Register of Historic Places	Cultural Association	Location	Access Road Surface	Facilities	Interpretive Program	Site Protection	Notes (Interpretive values, etc.)
A various sites on Hopi Reservation	Hopi	Yes	Hopi, A/H	AZ 264/87	Paved	Cultural shop/res-aurant.	vc.; some waysides.	Some	Expansion/new tourism development planned in future.
A (Proposed Petroglyphs NM)	(NPS)	Yes	Upper Rio Grande Tiwa	NM: W of Albq. (Coors Rd. & Paradise Blvd.)	No public access now (except to existing state park)	Cultural Ctr.--shop/res-aurant.	vc.; some waysides.	Some	Legislation pending.
> Woodrow Ruin	NM: State (Land Off.)	Yes	Mimbres 1050-1150	Off NM 180, 45 mi. NW of Silver City	Paved. No public access now.	None	None	None	Possible development in future--evaluated in Mimbres study. Large Mimbres site, 80% intact, outside Mimbres Valley.
> Mattock Site	Mimbres Foundation	Yes	Mimbres	Off NM 35, 25 mi. E of Silver City.	Paved/No Public access now.	None	None	None	Good interpretive potential, Animas Phase, 900-1400 rooms. Large Classic Mimbres site in Mimbres Valley.

B: COSTS

The base annual cost of administering the Masau Trail is: \$150,000 (including salaries, travel, supplies, and cyclic sign and brochure production).

The estimated cost of developing the Masau Trail would be as follows:

	<u>Alt. 1</u>	<u>Alt. 2 or 3</u>
Trail markers	\$ 12,000**	\$ 25,000**
Brochure	25,000	25,000
Film	100,000	100,000
Radio system	24,000	63,000
Level 1 site media	65,000	170,000
Multi-agency orientation center media	35,000	105,000
Wayside exhibits	100,000	200,000
Interpretive Prospectus	<u>30,000</u>	<u>30,000</u>
	\$ 391,000*	\$ 718,000*

* = Estimates shown are gross and include planning, design, and development costs.

** = Assumes that states will bear cost of posting and erecting markers.

Note = Interpretive publications/tapes would be produced by an NPS cooperating association.

C: LEGISLATION

Public Law 100-225
100th Congress

An Act

To establish the El Malpais National Monument and the El Malpais National Conservation Area in the State of New Mexico, to authorize the Masau Trail, and for other purposes

Dec. 31, 1987
[H.R. 403]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE II—MASAU TRAIL

DESIGNATION OF TRAIL

Sec. 201. In order to provide for public appreciation, education, understanding, and enjoyment of certain nationally significant sites of antiquity in New Mexico and eastern Arizona which are accessible by public road, the Secretary, acting through the Director of the National Park Service, with the concurrence of the agency having jurisdiction over such roads, is authorized to designate, by publication of a description thereof in the Federal Register, a vehicular tour route along existing public roads linking prehistoric and historic cultural sites in New Mexico and eastern Arizona. Such a route shall be known as the Masau Trail (hereinafter referred to as the "trail").

AREAS INCLUDED

Sec. 202. The trail shall include public roads linking El Malpais National Monument as established pursuant to title I of this Act, El Morro National Monument, Chaco Cultural National Historical Park, Aztec Ruins National Monument, Canyon De Chelly National Monument, Pecos National Monument, and Gila Cliff Dwellings National Monument. The Secretary may, in the manner set forth in section 201, designate additional segments of the trail from time to time as appropriate to link the foregoing sites with other cultural sites or sites of national significance when such sites are designated and protected by Federal, State, or local governments, Indian tribes, or nonprofit entities.

INFORMATION AND INTERPRETATION

Sec. 203. With respect to sites linked by segments of the trail which are administered by other Federal, State, local, tribal, or nonprofit entities, the Secretary may, pursuant to cooperative agreements with such entities, provide technical assistance in the development of interpretive devices and materials in order to contribute to public appreciation of the natural and cultural resources of the sites along the trail. The Secretary, in cooperation with State and local governments, Indian tribes, and nonprofit entities, shall prepare and distribute informational material for the public appreciation of sites along the trail.

MARKERS

Sec. 204. The trail shall be marked with appropriate markers to guide the public. With the concurrence and assistance of the State or local entity having jurisdiction over the roads designated as part of the trail, the Secretary may erect thereon and maintain signs and other informational devices displaying the Masau Trail Marker. The Secretary is authorized to accept the donation of suitable signs and other informational devices for placement at appropriate locations.

101 STAT. 1541

16 USC
460uu-13

16 USC
460uu-14

State and local
governments
Indians

Arizona
Federal
Register
publication
16 USC
460uu-1

16 USC
460uu-12

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E: DRAFT MARKETING PLAN

MASAU TRAIL

MARKETING PLAN

FEBRUARY 1989

SUBMITTED TO:

THE NATIONAL PARK SERVICE

PREPARED BY:

HAYDUK-KING ADVERTISING, INC.

GARY BOAL
ACCOUNT EXECUTIVE

DAVE HAYDUK
PRESIDENT

JERRY KING
VICE-PRESIDENT



HAYDUK • KING

A D V E R T I S I N G

Massau Trail marketing report prepared by Hayduk/King
Advertising for the National Park Service under contract
number RQ7350-8-0011.

INTRODUCTION

The National Park Service contracted with Hayduk-King Advertising in September 1988 to develop a Masau Trail marketing plan to be used within the comprehensive management plan. The marketing plan objective is to guide the National Park Service and Masau Trail cooperators and supporters in promoting public awareness of the trail and its sites on a regional, national, and international level, consistent with their authorities. A secondary objective is to help bolster tourism in the region.

The National Park Service planners reviewed and worked closely with the Hayduk-King staff as this draft marketing plan was prepared during the winter of 1988-1989. Hayduk-King did not originate or create any marketing data, as per contract, but used only existing data in the development of this plan. This draft marketing plan will be reviewed by the general public, federal, state and local agencies, Native American tribes, and others. Comments will be evaluated before the final plan is prepared.

LEGISLATION

The Masau Trail, as envisioned by Congress, will be a marked vehicular tour-route linking certain nationally significant prehistoric and historic cultural sites in New Mexico and eastern Arizona. It was authorized under Title II of Public Law 100-225, approved by Congress December 31, 1987.

The tour route will be designated along "existing public roads." Other than the erection of trail-route markers and roadside information exhibits, no other development is anticipated or authorized.

Congress identified seven initial sites to be linked by the trail: El Malpais National Monument, El Morro National Monument, Chaco Culture National Historical Park, Aztec Ruins National Monument, Canyon de Chelly National Monument, Gila Cliff Dwellings National Monument, and Pecos National

Monument. Additional segments of the Masau Trail may be added as appropriate to link these initial sites with other appropriate cultural sites or sites of national significance when such sites are designated and protected by Federal, State, or local government, Indian tribes, or nonprofit entities.

The National Park Service is authorized to negotiate cooperative agreements with those entities managing designated trail sites. The agreements would be for the purpose of providing technical assistance in the development of interpretive devices and materials that would contribute to public appreciation of the resources of sites along the trail. In cooperation with the site-managing entities, the National Park Service will prepare and distribute informational material for the public appreciation of sites along the trail.

The National Park Service is authorized to pay for production, erection, and maintenance of the signs and other information devices. Donations for such items may be accepted by the National Park Service. Other informational materials may be prepared and distributed by the National Park Service, and some may be developed in cooperation with State and local governments, Indian tribes, and nonprofit entities.

The National Park Service is authorized to negotiate cooperative agreements with those entities managing designated trail sites. The agreements would be for the purpose of providing technical assistance in the development of interpretive devices and materials that would contribute to public appreciation of the resources of sites along the trail. In cooperation with the site-managing entities, the National Park Service will prepare and distribute informational material for the public appreciation of sites along the trail.

Under Title V of the act which primarily dealt with the El Malpais National Monument and Conservation Area, Section 510 authorized to be appropriated \$500,000 for planning and development of the Masau Trail.

Public Law 100-567, October 31, 1988, established the Zuni-Cibola National Historical Park and provided that it be included as a Masau Trail site.

It should be noted that congressional intent, though not stated in the law, is to bolster tourism in the region. Congressional intent was also to insure that a multi-agency orientation center to be located on Interstate 40 at Grants, New Mexico (Title V, Section 501) would be to inform visitors about the Masau Trail and El Malpais National Monument and conservation Area.

MARKETING PLAN GOALS AND OBJECTIVES

1. Form an entity known as the Masau Trail Association (MTA) to develop and manage publicity and promotion for the Trail.

- Develop agreement between the National Park Service and MTA to promote the Trail.

- Promote Masau Trail Association (MTA) membership consisting of chambers of commerce on the Trail, convention and visitor bureaus, departments of tourism from New Mexico and Arizona, Indian tribal groups, and other appropriate tourism promotion entities and supporters of the Trail.

- Coordinate the marketing effort between New Mexico and Arizona.

- Coordinate each community's marketing efforts of the Trail.

- Encourage and facilitate use of the official Trail logo on all appropriate consumer and trade collateral.

- Manage and oversee the creation of a visitors handbook (compliment to NPS's interpretive guidebook).

- Distribute Masau Trail brochure material through State welcome or information centers.

- Support national and international promotion.

- Support interstate highway promotion.

- Support cross promotion.

2. Enhance tourism opportunities in the region.

- Use existing regional, national and international markets.

- Package Trail to attract use.

- Promote repeat visitation.

3. A framework for the incorporation of new sites into the marketing plan or the de-promotion of sites as determined by NPS.

WHERE WILL THE TRAIL USER COME FROM?

The majority of recreational travelers in New Mexico and Arizona come from within their own state. This fact comes as no great surprise when you view the following data on Pleasure Driving.

Americans continue to seek outdoor recreational opportunities by means of the automobile. In 1983, Americans traveled approximately 170 billion vehicle miles, driving to reach outdoor recreation opportunities and driving for the simple recreational pleasure along America's roads. Driving for pleasure ranks high among America's most popular outdoor recreational activities, accounting for about 43 percent of the total annual outdoor activity.

The fact that most of New Mexico's and Arizona's travelers come from within the state is further demonstrated by the following. Over the past decade most recreational trips were experienced at shorter distances. Almost 66 percent of such trips involve distances of 20 miles or less, while 95 percent of recreational driving trips are for distances of less than 75 miles. Also indicative of this trend of shorter and more frequent trips is the decline in nights spent away from home. The time-distance gap between people and outdoor recreation areas is a major factor in how Americans seek recreational opportunities.

The next largest group of visitors to New Mexico and Arizona come from the states that border each state respectively. California, Nevada (via Las Vegas), Utah, Colorado (primarily the front range), Oklahoma, Texas (Amarillo, Dallas, Houston, El Paso), Arizona (Phoenix/Tucson, Grand Canyon), and New Mexico. The pattern fits the national pattern for pleasure driving when you consider that Americans are making shorter trips. New Mexico and Arizona also welcome visitors from all over the nation plus visitors from abroad (mainly Europe).

Visitation patterns to NPS sites within the Masau Trail were basically the same as New Mexico and Arizona visitation. The bulk of visitation came from the home state of the site, followed by border states and foreign countries.

In summary, our information indicates that most of the Trail use would come from New Mexico and Arizona, the

adjoining states (Texas, Colorado, Oklahoma, Utah, Nevada, and California). Where a person lives influences recreational choices. The Masau Trail will be very accessible and attractive to people within Arizona and New Mexico and the neighboring states because of the trend toward more frequent and shorter trips. Less than five percent of typical pleasure driving trips involve distances over 75 miles. More outdoor recreation experiences are being sought closer to home than in the past. While the number of trips is up, the duration of recreational trips is down. Since the Masau Trail is a very long route (whether it is 750 miles or 1500 miles), touring the entire main route is beyond the ability of most potential users. So, smaller one to three day routes are more likely to fulfill the visitors needs (refer to NPS comprehensive management plan).

WHO IS THE MASAU TRAIL USER?

Population trends, family size, family income, demographics, and lifestyles all influence the recreation behaviors of Americans.

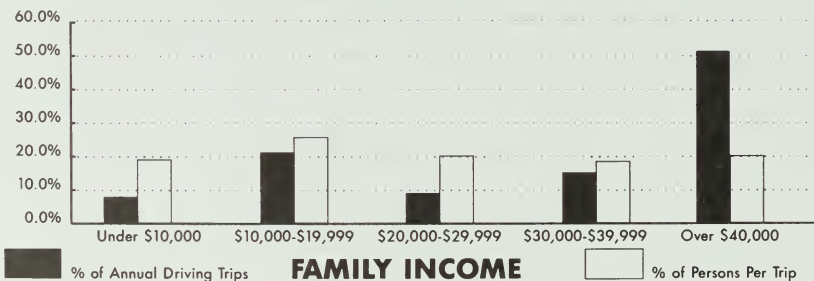
Since 1959, approximately 25 nationwide questionnaire surveys have been conducted on outdoor recreation. Most of the following data is based upon the "National Recreation Survey", "American Outdoors and Outdoor Recreation: A Study of Users In The State of New Mexico" and the National Park Service data. Also, data was provided by the following chambers of commerce - Silver City, Grants, Gallup, Farmington, Santa Fe, Winslow, and Flagstaff.

The National Recreation Survey shows that a frequently cited constraint on outdoor recreation participation is lack of time and money. The most common reasons cited for changes in time spent on outdoor activities can be traced to changing stages of life cycle. Americans 60 years and older are much less active in outdoor recreation than younger groups (i.e. camping, backpacking, etc). However this group is very active with pleasure driving as an activity. This is a factor to consider since the Silver City Chamber of Commerce reports that the majority of their visitors are 55 years of age and older. Also, Montezuma Castle National Monument, Navajo National Monument, Wupatki National Monument and Petrified Forest National Park all indicated that the older visitor is dominant during the winter

months.

The relationship of family income to pleasure driving has an interesting pattern. Persons whose family incomes are under \$20,000 make up about 26 percent of the pleasure driving trips. Nearly 35 percent of pleasure drivers have family incomes between \$20,000 and \$30,000, and about 50 percent of households that take part in pleasure driving have over \$40,000 total family income. Equally important is the fact that the ratio of persons participating in such trips is proportionately higher for lower family income groups, suggesting possibly that the family pleasure drive is still a low cost form of recreation. In addition, the forecast for spending on durable goods in 1989 is expected to drop significantly from 4.5 percent to 2.4 percent over the year, which will leave more money for leisure activity.

RELATIONSHIP OF ANNUAL PLEASURE DRIVING TRIPS AND PERSONS PER TRIP BY FAMILY INCOME



In New Mexico and Arizona the pleasure driving participants are blue and white collar male and female, cover all age categories, single or married and with or without children. The average number of people per group is 4.6 people. It must be recognized that some demographic groups will be more prevalent at different times of the year due to climate, vacations and family schedules. The average dollar expenditure per trip is \$49.95. The majority of the dollar goes toward transportation and food.

All of the NPS sites that would be a part of the Masau Trail indicated that most of the current visitation is from people passing through. In other words these sites are not viewed as destination sites such as the Grand Canyon or Mesa Verde. They are side trips used on their way to a destination. The Masau Trail will be an ingredient or supplement in travel plans for the majority of users.

The Foreign Tourist

Total foreign tourism to the United States is markedly up and 1989 should prove to be another record year for inbound Canadians. Additionally, inbound Mexican tourism is still rebounding while departures for Mexico are decreasing. New Mexico and Arizona will not be overlooked by the foreign tourist.

Major contributing factors to this rise in inbound foreign tourism are: the status of the world economy; the continued weakness of the American dollar; lower transoceanic fares; and increased U.S. advertising abroad.

A study by Foremost West, a non-profit organization created to market a five state region in the Southwest on a national and international basis, revealed that foreign travel to the five state region of Wyoming, Utah, Colorado, Arizona and New Mexico, is originating in the greatest numbers from Canada, Mexico, Japan, United Kingdom, West Germany and France respectively. In 1988 the incoming numbers from these countries were as follows:

Canada.	11,855,000
Mexico.5,545,000
Japan.	2,620,000
United Kingdom.1,560,000
West Germany.1,070,000
France.580,000

Exact figures are not kept at many NPS Masau Trail Sites on where foreign visitation is coming from. However, the indication is that foreign visitation is a significant part of their figures. Estimates of where visitation is coming from closely follow the above pattern. The strongest foreign representation is coming from the European countries, with West Germany being the dominant country.

The approximate number of foreign visitors to New Mexico alone is 201,000 from Canada, 34,000 from Mexico, 30,000 from West Germany, just under 10,000 for the United Kingdom and slightly less than 2,000 for Japan and France each. Not more than a five percent change is expected for any one of these numbers through 1989.

Arizona enjoys the greatest numbers of inbound foreign tourists with 758,000 from Canada, 162,000 from Mexico, close to 100,000 from the United Kingdom, slightly fewer than 80,000 from West Germany and Japan each and 40,000 from France.

Also on the rise is the number of nights they're spending here and undoubtedly the amount of money. As stated by Foremost West, the average number of nights on a trip by someone from West Germany and/or the United Kingdom is 28, with France a close second at 27.

Charted demographics of key overseas tourists follow, as stated by Foremost West.

MARITAL STATUS	West Germany	United Kingdom	Japan
Single	38%	16%	30%
Married	44%	68%	61%
Divorced/separated/ widowed	15%	15%	8%
SEX			
Male	56%	38%	37%
Female	44%	62%	63%
AVERAGE AGE in years	39	48	40
AVERAGE INCOME in U.S. currency	\$18,800	\$21,200	\$46,500
EDUCATION			
College Degree	12%	18%	31%

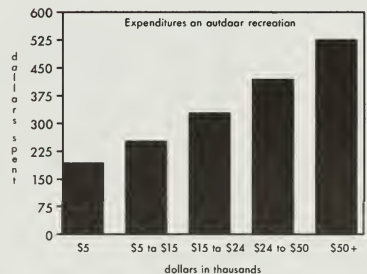
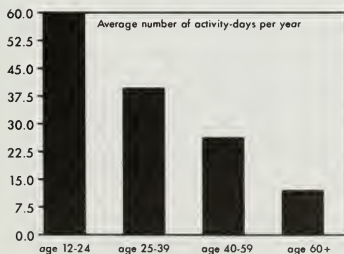
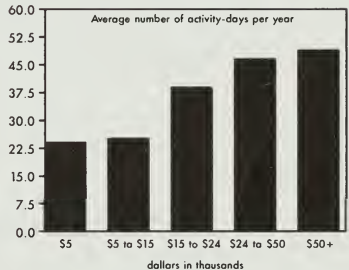
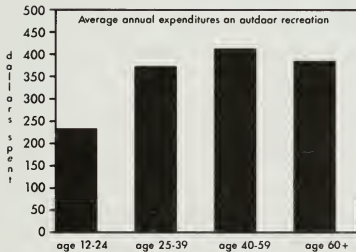
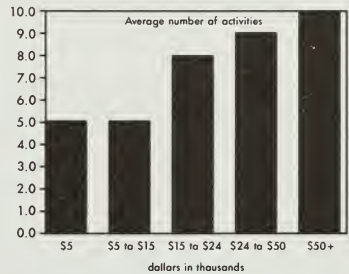
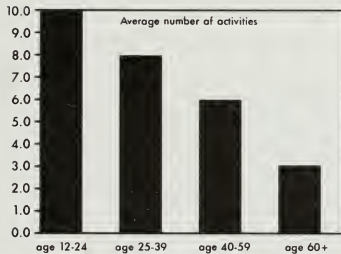
The foreign visitor will be an important part of the Masau Trail visitation. The interest of the foreign visitor in

INCOME IS A FACTOR

A person's income and age usually indicate the following

- Number of outdoor recreation activities undertaken.
- Number of activity-days a year
- Annual expenditures on such activities.

These relationships are illustrated. Higher family incomes are associated with higher rankings in outdoor recreation expenditures. This is consistent with survey findings that money was a constraint on outdoor recreation participation.



Source: 1982-1983 Nationwide Recreation Survey, National Park Service, 1986

Involvement in Outdoor Recreation, by Age

Source: 1982-1983 National Recreation Survey, National Park Service, 1986

Involvement in Outdoor Recreation, by Family Income

Southwest archeology is high. NPS personnel indicate that the visitors knowledge of the area is as good or better than the domestic visitor. They see this trend continuing as foreign visitation at all the sites has been climbing on a yearly basis.

MODE OF TRAVEL, TRAVEL INTERESTS AND NEEDS.

Travel mode

The following information was collected from the National Park Service, departments of Tourism in Arizona and New Mexico, the New Mexico State Parks "Outdoor Recreation Study", visitors and convention Bureau in Albuquerque, and chambers of commerce in Silver City, Grants, Gallup, Farmington, Santa Fe, Winslow and Flagstaff.

The obvious mode of travel for the majority of travelers in New Mexico and Arizona is by car or truck. Bus tours were at less than 1 percent, motor homes at 3.5 percent.

Method of Travel:	Car/Truck	75.4%
	Walking	15.0%
	Motor Home	3.5%
	Bicycle	3.9%
	Bus	0.6%

NPS sources also indicate that the car/truck is the favored mode of travel. Bus tours are a small percentage of vehicle traffic. Foreign visitors and senior citizens make some use of buses. However, for most foreign visitors the car is still the favored mode of transportation.

Auto travel, including trucks and RVs, was up more than ten percent, the highest rate compared to air, bus and rail travel, and is responsible for a four percent increase in American travel industry activity on the whole. In support of this fact, domestic air travel during the first six months of 1988 was down about two percent. Another measure of increased auto travel is AAA's Triptik Survey which showed auto travel by members up eight percent.

Travel Interests And Needs

The travel interests and needs are very broad. Nationally the scenic road traveler is looking for roadside rests, picnic areas, camera stops, scenic overlooks, campgrounds, boat launching sites, trails and other special facilities. Complementary facilities add depth, breadth, and additional personal meaning to the recreation opportunities along a scenic road. As reported by the National Park Service, remote America did well in 1988 compared to visitations over the previous several years. Alaska and the Pacific Northwest are both ten percent ahead of last year. The Midwest even enjoyed a 10 percent increase in attendance despite the drought. The Southeast also reports an increase of eight percent. This is indicative of attraction to national park sites. Last year recorded a marked increase in overnight visits to campgrounds and this should not be overlooked, especially coupled with the reverse in backcountry overnights. Another notable fact is the earnings by the National Park Service charging fees at campsites: \$42 million in 1988 year and nearly \$50 million projected for 1989. And there is no significant difference between visitation to those sites which charge fees and those that don't. The National Park Service conservatively estimates a 3.3 percent increase in attendance in 1989 and 3.5 percent in 1990, with rural Western parks above forecast.

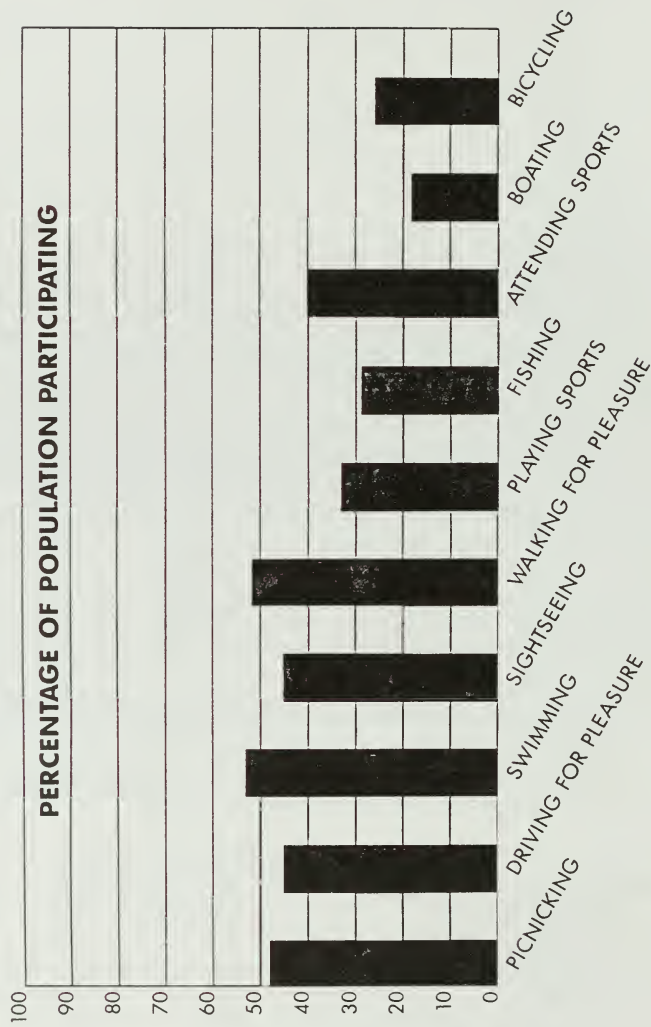
New Mexico and Arizona travelers' priorities closely parallel those of the national data. The amenities most important to travelers in New Mexico and Arizona are:

1. restrooms,
2. scenic quality,
3. maintenance of facilities,
4. safety,
5. public accessibility or wildlife.

The top products, services and amenities sought by the foreign tourist are as follows:

	West Germany	United Kingdom	Japan
SPORTS/ENTERTAINMENT	24%	12%	23%
DEVELOPED RESORT	7%	7%	8%
CULTURE & COMFORT	*	22%	27%
CULTURE & NATURE	13%	16%	22%
RURAL BEACH	20%	*	11%
BIG CITY	20%	12%	*
INTERESTING/FRIENDLY LOCALS	92%	95%	-
WARM/SUNNY CLIMATE	86%	93%	-
WILDERNESS/UNDISTURBED NATURE	85%	-	-

NATIONAL TRENDS IN OUTDOOR SUMMER RECREATION ACTIVITIES



OUTSTANDING SCENERY	87%	97%	96%
VALUE FOR VACATION MONEY	-	98%	96%
STANDARDS OF HYGIENE/CLEANLINESS	-	91%	91%
OPPORTUNITY TO INCREASE KNOWLEDGE	85%	87%	91%
EXPERIENCING NEW & DIFFERENT LIFESTYLES	87%	90%	76%
SEEING AS MUCH AS POSSIBLE	81%	88%	87%

* ... Segment not present.

- ... Not in top six statements of wants/needs.

There are many attractons that are of interest to a visitor in the New Mexico and Arizona region. All of these compete for the time and money of the traveler. Obvious competitors are other National Park attractions (Grand Canyon, etc), cultural attractions (Santa Fe), warm climate (Phoenix in winter), and other scenic and cultural routes. In the north central section of New Mexico, there are or will be motor vehicle trails vying for tourist attention including the Santa Fe National Historic Trail, the Navajo Trail in eastern Arizona and the locally promoted Turquoise Trail and The High Road To Taos. The Pueblo villages and other private Federal, or State, cultural, natural, or recreational areas must also not be overlooked.

Other, more esoteric factors that may divert attention away from Masau Trail attractions are the economy, consumer spending, air and rail travel, and business travel.

The Economy and Inflation

According to Dr. S. R. Malin, Sr. Economist for the Conference Board, the 1989 economy will not be as good as before. Short-term economic conditions indicate a slowdown in the economy and a recession is possible. Seven issues to keep in mind are: new politics in the White House and Congress; the inflation rate which is slated to rise and is a source of worry among Americans; the banking industry, its potential erosion and higher interest rates; consumer spending; the Japanese market and other world trade imbalances; foreign investment in the U.S.; and the continued weakness of the American dollar abroad. Also notable is the decline of any significant expenditures in highway and airport improvements. Also, Federal excise taxes on gasoline may increase as much as 50 cents a gallon to help balance the budget and this would have an enormous

effect on automotive vacation travel. Nine states have increased their gasoline taxes in 1988 and 14 more are expected to do so in 1989.

Consumer Spending

As we noted earlier, consumer spending on autos, homes, furnishings and other durables competes with monies spent on travel. Such spending rose sharply after the 1981-82 recession. This reduced available money for travel. This is distressing, noting the 13.5 percent increase in durable spending in 1988. This spending continues to rise at a rate of 8.1 percent, exceeding the growth rate for personal income.

Shopping is an important attraction that may keep the potential tourist home instead of on the Trail. According to the International Council of Shopping Centers, there are more shopping centers in this country than secondary schools and post offices.

Air and Rail Travel

In response to consumer complaints, the quality of air service, as indicated by on-time arrivals and departures, is improving. This year capacity growth should increase 6.5 percent. Traffic growth should also increase 5.5 percent while unit cost growth should only increase 1.0 percent which means low fares. One reason for this strong performance is lower jet fuel prices. Fuel costs comprise 17 percent of the cost structure and the world outlook for the next two years calls for a continued weak oil price environment. One potential window of opportunity for the Masau Trail is the pending state and city acquisition of land to help create a Petroglyph National Monument west of Albuquerque. The formation of this park would also be dependent upon pending federal legislation. The proximity of this site to the Albuquerque International Airport allows for the potential opportunity of some fly-in visitation for the Masau Trail.

In regard to rail travel, 1988 will go down in history as Amtrak's billion dollar year. Passenger revenues exceeded \$760 million, a 16 percent increase over the previous year.

Trip length increased about 3.5 percent. Growth in the long-distance markets should increase more than 15 percent above last year and the Western market is slightly higher than the Eastern long-distance market. The major contributing factor to this rise in rail use is Amtrak's carefully developed marketing program which proved quite productive. Amtrak plans to continue its fundamental marketing strategy and offer new services. As a result, Amtrak expects to increase passenger revenues in 1989 by at least four percent. Amtrak's impact on the Masau Trail will be insignificant. Most of Amtrak's use is for long distance touring to destination areas with very little opportunity for side trips.

Business Travel

While it's true there are only 36 million business travelers compared to 150 million leisure travelers, what the former lack in number is more than compensated for by intensity. 1987 business travelers took 42 percent of all airline trips by U.S. travelers; 47 percent of all rental car trips; and 37 percent of all hotel trips. They are also more likely to use travel services than leisure travelers. Business travelers are more time sensitive, experienced, and demanding. Quality is more important than price. Business travel increased approximately 50 percent between 1982 and 1987 from 102 million trips to 158 million trips. Also notable is the misconception that more business travelers are combining work and play on business trips. Only 13 percent did this last year, and were more than likely traveling abroad. The business traveler is not likely to be a user of any significance of the Masau Trail.

Identifying these characteristics should be helpful in the development of the Masau Trail. All characteristics will not be present in any one segment of the trail and this should be taken into consideration.

MASAU TRAIL ASSOCIATION

The first logical step in the development and distribution of Trail and site information is the definition of who will oversee and coordinate the marketing of the trail. A non-profit entity formed and comprised of a member from each of

the chambers of commerce on the Trail, convention and visitor bureaus, departments of tourism from New Mexico and Arizona, Indian tribal groups and other appropriate tourism promotion entities/supporters is proposed to oversee and manage the promotion and marketing of the Trail. The sole purpose of the organization is to ensure a consistent and coordinated plan for marketing the Trail. The organization will be known as the Masau Trail Association (MTA). The departments of tourism in New Mexico and Arizona will help form and organize MTA.

The publicizing of the Masau Trail will be controlled through an agreement between the National Park Service and the Masau Trail Association (MTA). The role of such a relationship with NPS would strengthen the MTA promotional capabilities while perhaps helping NPS achieve its purposes.

MTA will manage the following areas:

1. Develop and manage publicity for the Trail.
2. Coordinate the marketing effort between New Mexico and Arizona.
3. Coordinate each community's marketing effort.
4. Encourage the use of the official Trail logo on all appropriate consumer and trade collateral (with NPS approval).
5. Manage and oversee the creation of a visitors handbook
6. Distribute Masau Trail brochure material through State welcome or information centers.
7. Support national and international promotion.
8. Support interstate highway promotion.
9. Support cross promotion.

Interstate Promotion, Between New Mexico and Arizona

The creation and distribution of trail and site information must begin with defining the potential trail user. Data indicates that the majority of users will be from New Mexico and Arizona, with the next largest group coming from adjoining states. The nature of the trips taken away from home is changing, especially in regard to the length of stay. Nights away from home were up only by 4 percent, and vacation nights declined 3 percent. The factor contributing to this trend is pointed out as the increased number of multiple income households and the difficulty in arranging extended vacations, thus the increase in weekend and shorter trips. Also taken into account is that the average

(national) recreational trip is 75 miles.

The information effort for the Masau Trail must therefore begin in New Mexico and Arizona, with the communities that are situated along the Trail. It is important that each of these communities portray the Trail in the same fashion ... i.e., a consistent message of what the Trail is and the kind of experience that the visitor can expect.

A coordinated familiarization program by MTA and the National Park Service would be conducted within regions of the Trail. The Trail divided into three regions consisting of region one - the Grants, Gallup, Farmington area; region two, of northeastern Arizona; and region three, of southwest New Mexico. The program, hosted by the community chambers of commerce, would include an audiovisual presentation of the entire Trail and a tour of the local sites along the Trail, in that particular region. Each chamber would invite tour operators, travel writers, hotel operators, travel agents, and the media. The cost of this program would be minimal consisting mostly of time required of MTA members. Extra costs for refreshments or other amenities are at the discretion and whim of the individual chambers of commerce.

The presentation will explain the background of the Trail, length of the Trail, destinations, road conditions, accommodations, site facilities, climate, history of each site, a map, and a National Park Service brochure of the Masau Trail.

Collateral

The major communities and/or chambers of commerce along the Trail have committed to include the Masau Trail in their promotional material. The dollar value of this material produced by each community ranges from \$20,000 to \$40,000.

Materials produced include brochures, maps, fliers, etc. All appropriate consumer and trade collateral (TV, radio, magazine, newspaper ads, brochures, maps, event schedules, and press kits) designed for the Masau Trail would be developed through MTA. All collateral material produced through MTA, chambers of commerce, or other entities would contain the use of the official (registered service mark)

Masau Trail logo with the approval of the National Park Service. MTA's development of collateral items insures that a consistent and accurate presentation of the Masau Trail is given. MTA could qualify for cooperative state funding in New Mexico and Arizona on individual collateral pieces. Appropriate collateral (handbook or directory) could be distributed at sites on the Trail provided MTA had such permission (i.e. agreement with NPS).

It is pertinent to note here that a poll by Foremost West indicated the top five sources of travel information to be: travel agents, brochures and pamphlets, family and friends, airlines and books--in that order--with the most assistance being sought from travel agents.

A visitors' handbook (this publication would not be as comprehensive as the NPS interpretive guidebook but would compliment it) of the Masau Trail certainly plays an important role in the promotional effort. The brochure would be produced through MTA and financially supported by advertising. The brochure would contain explanations of each site (information provided by the National Park Service), a map of the Trail, accommodations along the Trail, side trips and visitor facts. Graphics and logo produced for the Masau Trail handbook should be consistent. The publication would be available through MTA for chambers of commerce, travel industry representatives, tour operators, travel agents, Foremost West, and visitors. Production costs are estimated at two to three dollars per copy for a four color, 30-35 page handbook. The handbook would be an important source for the travel agent.

Interstate Highway Traffic

The market that exists on the interstate highways is a potential source of visitors for the Masau Trail. The planned I-40 interagency orientation center at Grants New Mexico is a potentially important tap for I-40 traffic. However, the naming of the center, its public perception, and directional signs on I-40 will be important in getting highway traffic to stop at the center. An example of the potential is the Gallup Visitor Center which averages 204 vehicles per month. 204 vehicles per month is small percentage of the actual traffic count (10,000+) along that section of I-40. The name and directional signs for the center should be carefully evaluated in terms of catching the motoring public's attention. Direct and effective

contact with the motoring public is key in attracting travelers to the Trail.

MTA would also coordinate with welcome centers or highway rest area information stations in New Mexico and Arizona for distribution of Masau Trail brochures.

National and International Promotion

The promotion of the Masau Trail on a national and international level will be a coordinated effort among MTA, Foremost West, and the departments of tourism of New Mexico and Arizona.

The level of promotion in State advertising is very competitive. The tourism budgets of New Mexico (\$2.4 million) and Arizona (almost \$3.4 million) are ranked nationally 37th and 31st. Arizona and New Mexico budgets are competing against promotion budgets of \$21.5 million from New York, \$20.5 million from Illinois and 13.7 million from Hawaii. Neighboring states spend nearly \$12 million in Texas, Colorado almost \$8.7 million, and Utah over \$3.5 million. To remain competitive, New Mexico and Arizona must maintain and strive to increase budgets.

The states of New Mexico and Arizona will incorporate the Masau Trail into state advertising programs. Also MTA can qualify for co-op funding of brochures.

MTA's other source for national and international exposure is through Foremost West. Foremost West is a non-profit organization created in 1974 by the governors of New Mexico, Arizona, Utah, Colorado, and Wyoming. The mandate of Foremost West is to sell and promote to the international tour operator and travel industry. Their experience is extensive in marketing and publicizing attractions in the five state area to the international market.

Foremost West will market the Masau Trail in the five following ways:

1. Distribute a Masau Trail brochure produced by MTA at travel trade shows and to tour operators.
2. Package the trail for tour operators to sell.

3. Market the Trail through the Tariff(catalog).
4. Include the Masau Trail in Foremost's international travel guide.
5. Create publicity with national and international media.

New Mexico and Arizona will be encouraged by MTA to market the Trail nationally and internationally. MTA should also extend itself to New Mexico's and Arizona's various travel agency trade associations. The travel agent is the number one source for travel information for the majority of foreign travelers.

Cross Promotion

Many travel experts and studies suggest that each additional night spent by a visitor means "x" number of additional dollars in revenue. The additional dollar has a ripple effect through each local economy. Studies show that a dollar will turn two times in a community. Additional sales in products and services create additional tax revenues, etc. So it is to the benefit of the Masau Trail communities to encourage more time spent on the Masau Trail.

The visitor has a limit of time, money and interest that can be spent in each community. MTA should recognize this fact and realize the need for a program cross-promoting the various Masau Trail sites and related trail communities so that the visitor will distribute his or her time and money among the communities and sites. Each community on the Trail has its attractions for visitors, and the circulation of visitors to and from other Trail communities is a benefit. MTA's role will be to help communities in cross promoting and encouraging visitation to sites and communities throughout the Trail.

The following programs would be developed by MTA.

1. Cooperative accommodation packages between communities.
2. Informing each Masau Trail chamber of commerce of events and activities of other Trail communities.
3. Literature about other available attractions unrelated to but adjacent to within the Trail.
4. Literature about the Trail could be distributed amongst other sites neighboring yet not on the Trail.

NPS should develop a similar program cross promoting NPS attractions, i.e., Grand Canyon, Mesa Verde and others. This program takes advantage of existing markets within close proximity of the Trail. The program would create one more source for bringing visitors to the Masau Trail and encouraging more circulation along the Trail. The numbers of visitors that could be tapped from surrounding NPS attractions is extremely high (see Chart following page).

The market potential of the Masau Trail is tremendous. The market begins in New Mexico and Arizona and then extends into the adjoining states. MTA's role will be the publicizing of the Trail in New Mexico, Arizona, nationally, and abroad.

The cross-promoting among MTA member communities has important elements (tapping existing markets) in the exposure of the Trail to the visitor and in achieving more time per trip from the traveler, thus creating enormous benefits to MTA member communities and states. MTA should encourage the National Park Service to implement a similar program cross promoting the Masau Trail at its attractions along the Trail as well as outside the Trail. The market is tremendous when the potential of the Grand Canyon, Mesa Verde and other attractions is taken into consideration.

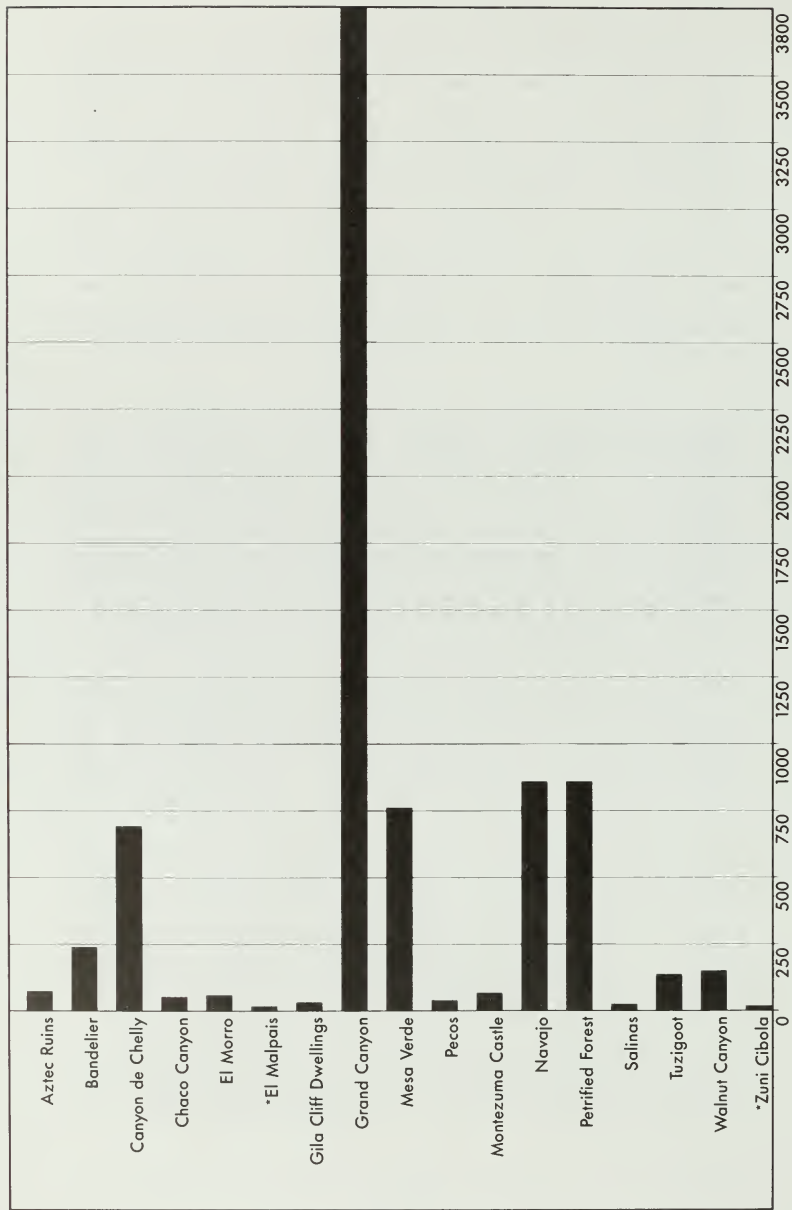
MTA's link with Foremost West and the departments of tourism in New Mexico and Arizona will be critical in the development of the national and international markets. The tourism departments of each state will have important leadership roles in the formation and direction of MTA.

The programs the Masau Trail can be tied into with state advertising will benefit MTA members and each state's tourism story. MTA's alliance with each state's tourism department should be used to encourage both Arizona and New Mexico to increase tourism promotion budgets as much as possible. Both states face serious competition from other states for the tourist dollar.

Foremost West has been packaging and selling Arizona and New Mexico nationally and internationally since 1974. The experience that they would bring to MTA is invaluable.

Finally, MTA's marketing efforts should be responsive to

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1988

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market forces and information that may make themselves known after the development of this plan.

FUTURE ADDITIONS AND DELETIONS OF SITES BY NPS

In the NPS comprehensive management plan(see NPS comprehensive management plan) contingencies are allowed for the addition or deletion of trail sites as deemed necessary by the NPS. MTA must be able to respond to these potential changes in its marketing efforts.

Effects Of A New Site On MTA

- Adds to and enhances the promotional story of the Masau Trail.
- Increases the potential for time spent on the Trail and additional tourism dollars.
- Potential for additional employment opportunities.
- A new site or sites could create new entry points on the trail. More entry points make the Trail more accessible and the signage for the entry points helps build trail awareness with the existing road traffic.
- Additional resources for cross promoting the Masau Trail.
- There would be a monetary cost of reproducing all collateral material to reflect the addition of a site(s).
- Additional sites would increase the complexity of the Trail, making the Trail a larger trail to market. An increase in size could make it more confusing to understand and harder to follow.
- New sites would require more travel time.

Deletion Of A Site

- Reduces the size of the Trail creating a

smaller package for the tourist. This would allow MTA to concentrate more promotion on the remaining sites of the Trail.

- Other sites in close proximity would benefit from the increased visitation resulting from the deletion of a site(s).
- The deletion of a site(s) could make the Trail easier to follow and understand by the visitor.
- Deletion might eliminate negative public experiences due to site overcrowding or other factors affecting the quality of the experience. Bad experiences could lessen interest in other sites.
- The deletion of a site could adversely affect tourism to a community. This would cost the community in terms of lost income and employment.
- MTA would be required to update all collateral materials to reflect the deletion of a site(s).
- Advertisers may be less willing to participate in the sponsorship of MTA's guide brochure with the deletion of a site(s).
- The elimination of a site(s) would mean a loss in cross promotion resources to the remaining sites.
- Dependent upon the significance of the site, i.e., if it were a major attraction, the overall Trail might become less appealing.
- An increase in mileage could be created - between sites thereby making the Trail less appealing to the traveler.
- The deletion of a site could help concentrate visitors at remaining sites. This could decrease the diffusion of visitors throughout the Trail.

MTA communities are added when a community within the proximity of the Trail would like to participate in MTA programs (brochures, maps, guide books, national/inter-national marketing, use of logo etc.)

- The addition of a new community would mean added resources such as financial gain through new advertisers, and the additional attraction of visitors by special events and services as provided by that community. MTA would gain additional members from the chamber of commerce and/or local government.
- If the added community were not within the existing boundary of the Trail new advertising possibilities exist with the newly added area.
- The addition of a community could enhance the Trail by providing the motorist with more hotels, restaurants, service stations and other amenities, thereby prolonging the length of time and amount of money spent on the Trail.
- A community's employment opportunities could be increased by being included on the Masau Trail. A community's tourism base could be enhanced by the Masau Trail.
- A community's agenda may differ or conflict with the intent of MTA.
- The reproduction of all collateral materials and the expansion of existing programs as well as the inclusion of a new community program would be costly to MTA.
- The bureaucracy of MTA would increase if a community were added, potentially decreasing the efficiency of the organization.

Recommendations

- NPS is responsible for determining the appropriateness of addition or deletion of a site. With respect to trail purposes, should a site be added or deleted, MTA would distribute information to all MTA members,

including the departments of tourism in New Mexico and Arizona and Foremost West.

- Publicity of the overall Trail should cover addition or deletion of site(s) with the media, travel industry, travel agents, tour operators, Foremost West, and others.
- MTA would incorporate the addition or deletion of site(s) into all phases of the cross promotion program including cooperative accommodation packages, literature about other attractions, and events within the community of closest proximity and the overall Trail.
- MTA would recreate all related collateral materials to reflect the addition or deletion of site(s).
- The new community would have to be introduced to all MTA programs and encouraged to implement them. Endorsements or some sort of statement of benefits from participating members could be provided to boost motivation of the new community to participate. Those to target with this information would include the chamber of commerce, potential advertisers, and suppliers of services such as hotels, restaurants, etc.
- MTA would reproduce all related collateral materials to reflect the addition of the new community. This should include photographs, a brief history, and a schedule of community events and attractions. This information would be distributed to all MTA members and participating organizations including those within the travel industry, and would be used in all promotional efforts.

MARKETING EVALUATION OF MASAU TRAIL ROUTE ALTERNATIVES (see NPS comprehensive management plan and map)

Alternative One (minimum requirements)

In this alternative, the eight legislated sites are connected through direct routes. The routes have some large gaps between sites, more than 75 miles which would make many

of the sites more than one or two day trips (national average mileage for pleasure driving is 75 miles). Visitors would view and think of the sites as being separate from the Trail because of the distances. It would be harder to establish the links between sites with the traveler.

Also, existing markets are not fully incorporated into this alternative. For example a site is not in close proximity of Albuquerque the largest New Mexico market. The Trail does not fully exploit the existing markets of Santa Fe, Flagstaff, Grand Canyon and Mesa Verde.

State and community involvement in Arizona would be harder to realize with only one site included in that State.

Alternative Two (preferred)

This alternative incorporates more sites and loops that take advantage of existing markets and tour routes. For instance, Santa Fe is a hub between Pecos National Monument and Bandelier National Monument, Albuquerque becomes more a part of the Trail with the addition of Salinas National Monument and the inclusion of Flagstaff incorporates the Grand Canyon market. The Silver City area benefits from the Phoenix/Tucson and El Paso markets.

There are fewer gaps between sites making the Trail more desirable to the public. There are a variety of loops that allow for one to three day trips. The majority of recreation trips fall into this time frame.

This alternative also includes more communities on the Trail. More communities increase the resources for promotion and publicity through MTA. Arizona becomes more of a part of the Trail.

Alternative Three (proposal-variation)

This Alternative deletes the tour route between the Grand Canyon and Mesa Verde. However, this alternative uses more loops to link sites outside the main Trail area. The Taos and Mesa Verde loops tie in major Anasazi areas outside the

Trail boundary. One to three day daytrips are still available to the user. The alternative would have less market potential, with the loss of the Grand Canyon tour route.

SUMMARY

The majority of Masau Trail users will come from New Mexico and Arizona, and the adjoining states (Texas, Colorado, Oklahoma, Utah, Nevada and California). The Masau Trail will be very accessible and attractive to people within Arizona and New Mexico and the neighboring states because of the trend toward more frequent and shorter trips. More outdoor recreation experiences are being sought closer to home than in the past. While the number of trips is up, the duration of recreational trips is down. Since the Masau Trail is a very long route, touring the entire main route is beyond the ability of most potential users. So, smaller one to three day routes are more likely to fulfill the visitors' needs.

In New Mexico and Arizona the pleasure driving participants are blue and white collar, male and female, cover all age categories, single or married, and with or without children. It must be recognized that some demographic groups will be more prevalent at different seasons times of the year due to climate, vacations, and family schedules.

The foreign visitor will be an important part of the Masau Trail visitation. The interest of the foreign visitor in Southwest archeology is high. NPS personnel indicate that the visitors knowledge of the area is as good or better than the domestic visitor. They see this trend continuing as foreign visitation at all the sites has been climbing on a yearly basis.

The obvious mode of travel for the majority of travelers along the Masau Trail is by car. Bus tours were at less than 1 percent, motor homes at 3.5 %. This trend holds true for the foreign visitor. Bus tours consisted of senior citizen groups and some foreign groups.

NPS personnel indicate that the sites along the Masau Trail are used by people passing through the area and are not viewed as destination sites. The Masau Trail will be one ingredient or supplement in travel plans for the majority of users.

There are many attractions that are of interest to a visitor in the New Mexico and Arizona region. All of these compete for the time and money of the traveler. Obvious competitors are other National Park system attractions, cultural

attractions climate, and other scenic and cultural routes. Other more esoteric factors that may divert attention away from the Masau Trail are the economy, consumer spending, air and rail travel, and business travel.

Marketing and promotion is proposed to be controlled through the Masau Trail Association (MTA), a non-profit entity formed to oversee and manage the promotion and marketing of the Trail and comprised of a member from each of the Chambers of Commerce on the Trail, convention and visitor bureaus, Departments of Tourism from New Mexico and Arizona, Indian tribal groups and other appropriate tourism promotion entities. The publicizing of the Masau Trail would be controlled through an agreement between the National Park Service and the Masau Trail Association (MTA)

MTA will manage the following areas:

1. Develop and manage publicity for the trail.
2. Coordinate the marketing effort between New Mexico and Arizona.
3. Coordinate each community's marketing effort.
4. Encourage the use of the official logo on all appropriate consumer and trade collateral.
5. Manage and oversee the creation of a visitors guide brochure.
6. Distribute Masau Trail brochure material through State welcome or information centers.
7. Support national and international promotion.
8. Support interstate highway promotion.
9. Support cross promotion.

In the draft NPS comprehensive management plan contingencies are allowed for the addition or deletion of sites to the Trail as deemed appropriate by the NPS. MTA must be able to respond to these potential changes in its marketing efforts. With respect to trail purposes, should a site be added or deleted, MTA would adapt its marketing efforts to such a change.

Of the three alternative routes developed by NPS, alternative 2 offers the highest marketing potential. The existing markets and tour routes in the area are incorporated into the route. More communities are involved thus strengthening MTA. And finally, the route would provide a number of loops that allows for one to three day trips which fit the recreation needs of the public and provides for a variety of choices.

REFERENCES

Arizona Department of Transportation

Arizona Department of Tourism

Chambers of Commerce from the following:

Albuquerque
Farmington
Gallup
Grants
Santa Fe
Silver City
Winslow

Foremost West

National Park Service

National Park Statistical Abstract 1987

New Mexico State Highway/Transportation Department

New Mexico State Parks & Recreation Division

New Mexico Welcome Centers' Daily Visitor Logues

SCENIC BYWAYS, U.S. Department of Transportation
Federal Highway Administration, July, 1988

Tourism & Travel Division of the State of New Mexico

U.S. Travel Data Center's 1989 Travel Outlook Forum

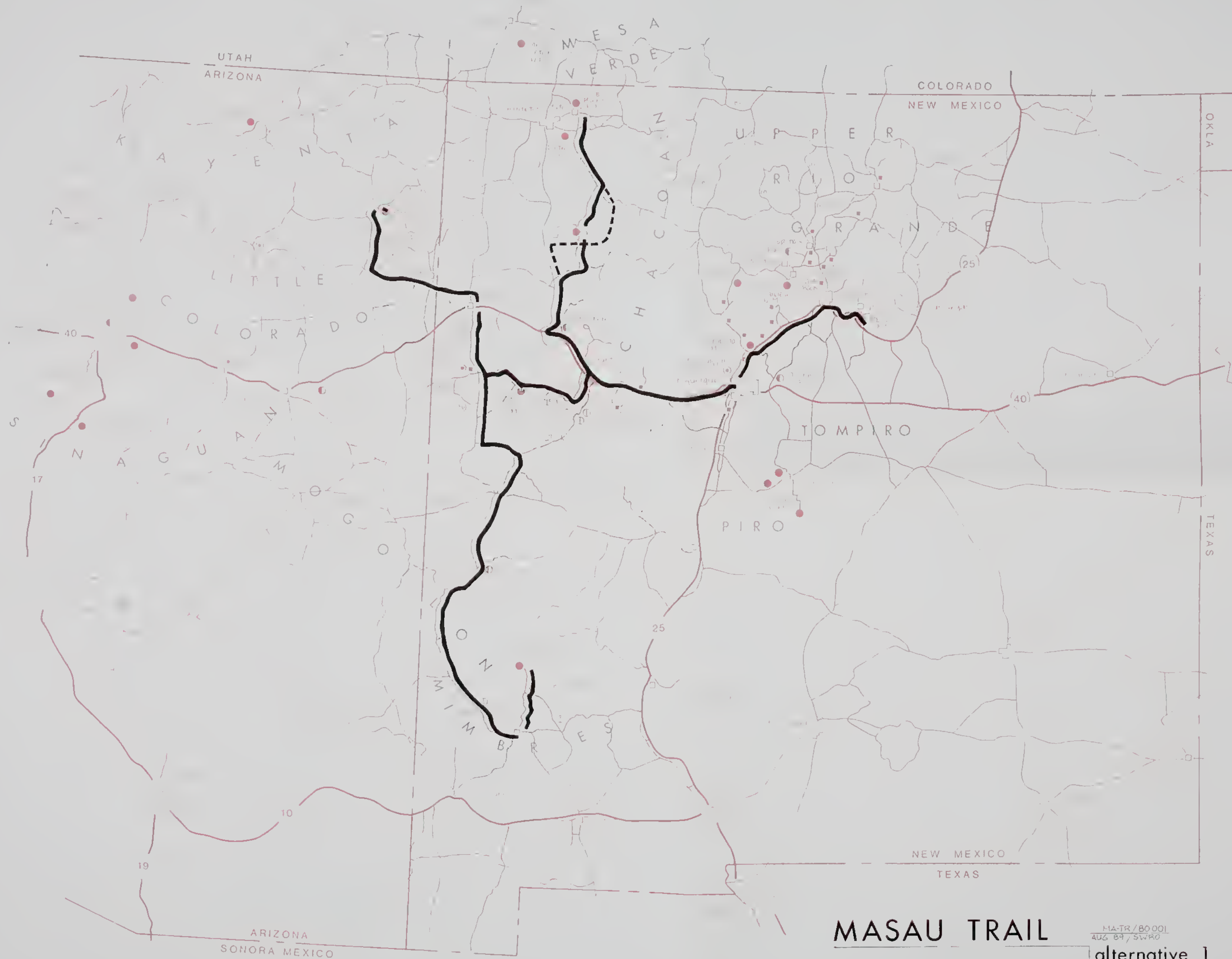
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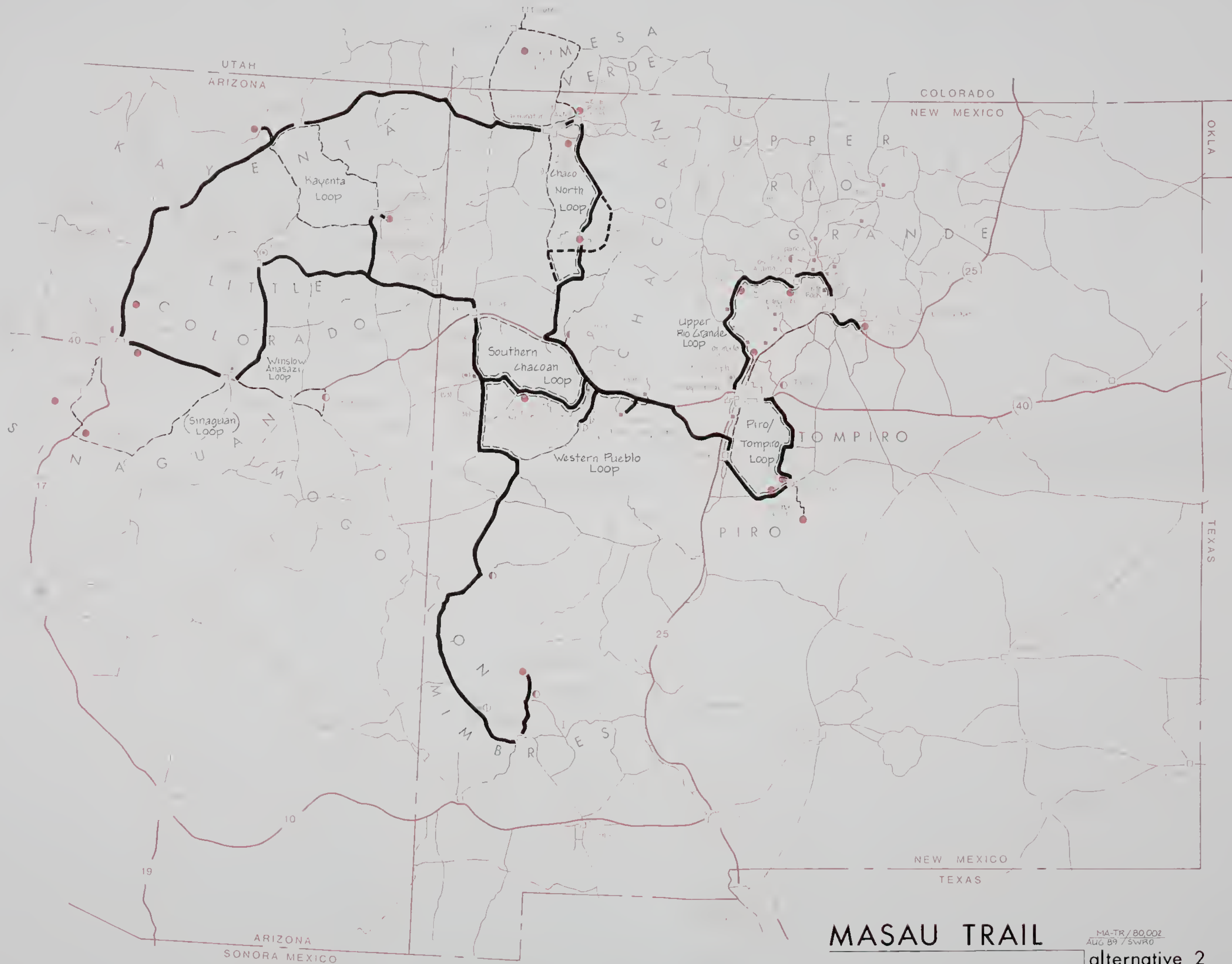
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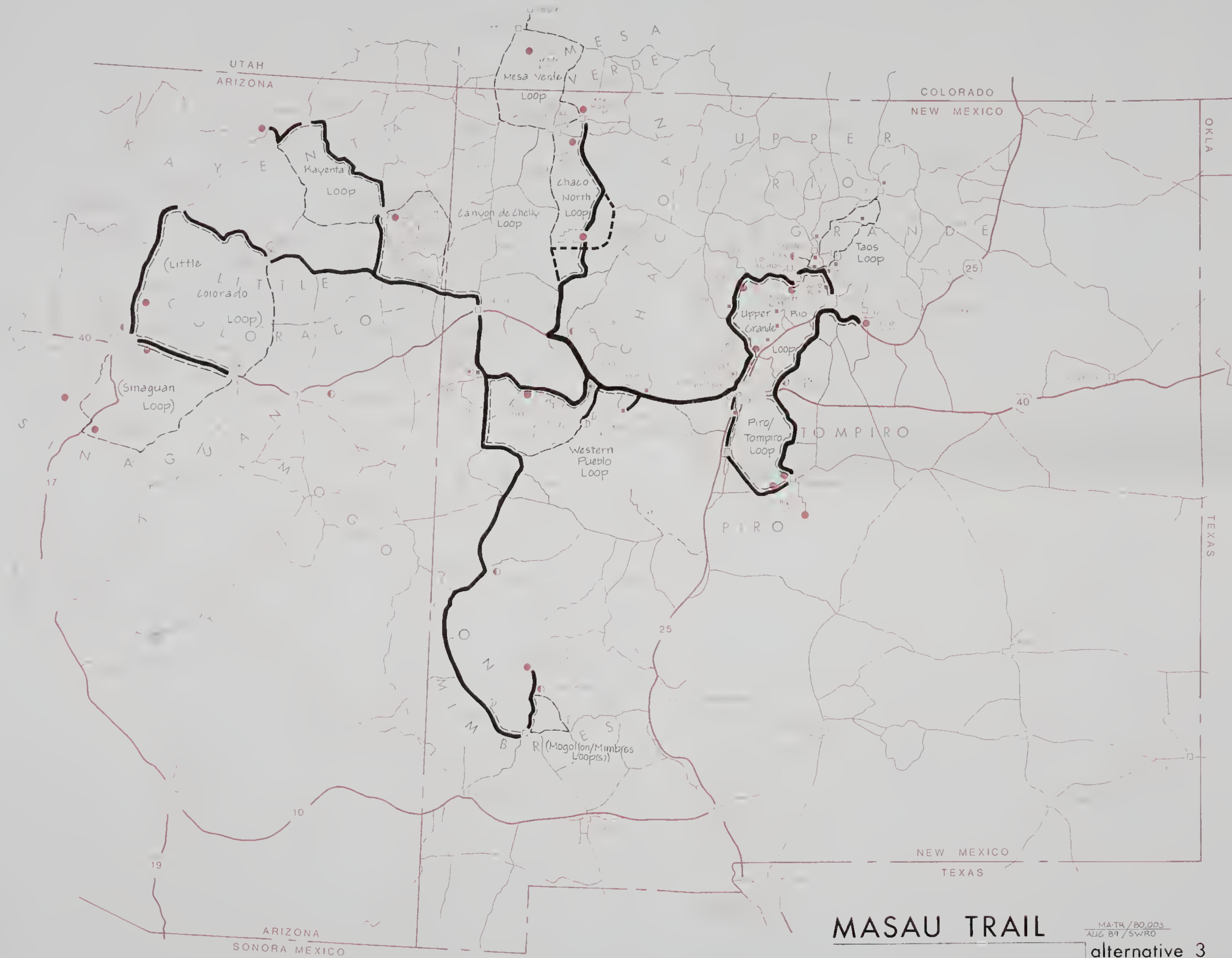
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